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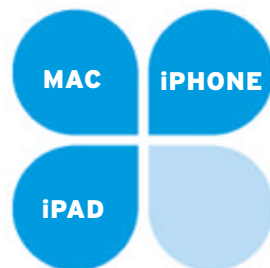
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Mac|Life

MAC iPHONE

iPAD

APRIL 2015 NO.100

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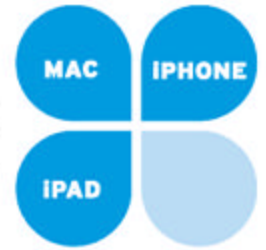
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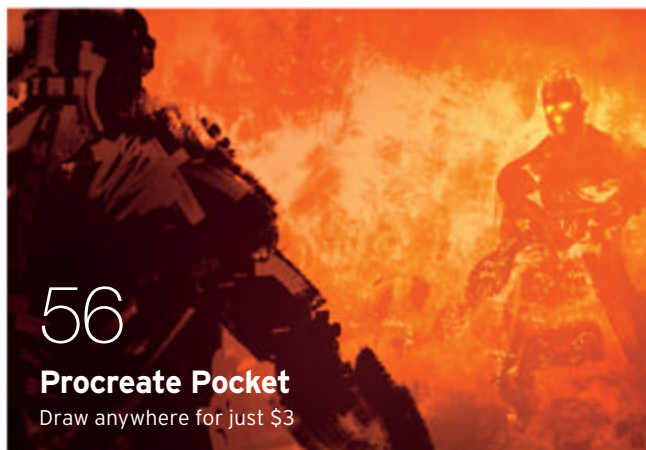
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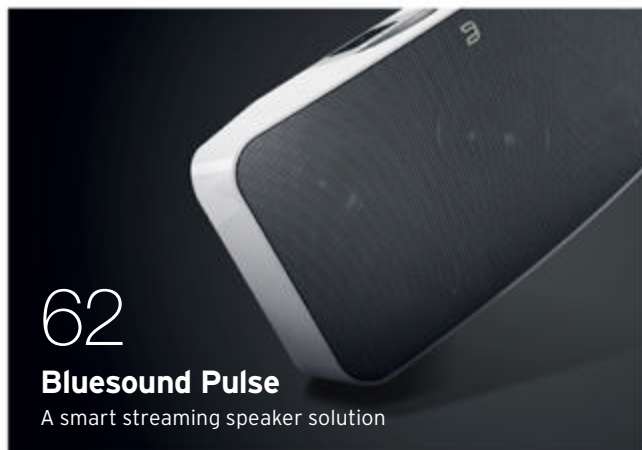
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In a sea of cookie cutter bags and cases, the North Carolinian leathersmiths ColsenKeane handcraft is the kind of head-turning bag you'll consider an heirloom. The No. 4313 Satchel: hand-stitched beefy aged hide, eight hours of artisanship, copper rivets and four heavy-duty buckles comprise the last bag you'll ever own. Guaranteed for life. The acme of grassroots American made custom leather goods for the vintage-minded in the digital age.

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ONE HUNDRED

IN FEBRUARY 2007, nobody owned an iPhone or Apple TV, all the iPods had scroll wheels, and Macs were midway through the feline family, with Mac OS X Tiger. Oh, and a little publication called *Mac|Life* debuted on newsstands.

I wrote for another Future magazine back then, but everyone at the company was impressed by *Mac|Life*'s clear, clean design, premium format, and easygoing attitude. I loved the book from the start, and thankfully, lots of readers agreed. In that first year, Leslie Ayers's incredible team – including longtime *Mac|Life* superstars Susie Ochs, Mark Rosenthal, and Robin Dick – established something special that was strong enough to last. Now, eight years later, here we are at issue 100.

What a wild, wonderful ride it's been. We've been privileged to cover the most remarkable stretch in Apple's history, which has seen the company grow from gutsy underdog to the biggest name in tech. When *Mac|Life* started, Apple was just beginning to build momentum off the success of the iMac and iPod: breakthrough products that exemplified the company's transformative iLife identity. Since then Apple has created the modern smartphone, given the world tablets, and revolutionized a million other little things along the way.

To celebrate the big one-double-zero, we're making a few changes to freshen things up for the next hundred issues – it's kind of a tradition with magazine milestones. We aren't doing anything too drastic this time, but we're including more reviews than ever and new ongoing columns, with more to come. We'll always look for ways to make the magazine even better, so if there's something you'd like to see, be sure to let us know.

Last but definitely not least, *Mac|Life* exists because of you guys, the people who buy each new issue and keep asking for more. Apple fans have always been an especially close-knit family, and we couldn't be happier to be a part of it. Thanks for making us feel so welcome.

CHRIS SLATE, Editor-in-Chief
Twitter: @ChrisSlate

›››CONTRIBUTORS

Matt Bolton
Editor
In 2007, Matt edited HD films on 1GB of RAM. He still has nightmares.

Mat Gartside
Deputy Art Editor
Mat was a CAD technician in 2007. No one's sure how he ended up here.

Jo Membery
Operations Editor
"I think I was having to deal with bloody Microsoft in 2007."

LETTER OF THE MONTH

I just finished reading Luke Dormehl's article on slumping tablet sales (The Lifer, Jan 2015). Luke and Apple may see this as a bump in the road, but we may finally be seeing evidence that the honeymoon is over, and forced obsolescence is becoming a bigger concern than whether or not a device is prettier, lighter, or has a new bell or whistle.

I own an iPad 1, which was supposed to be a device that replaced my computer. Three years later, Safari barely works on it, let alone other apps. This smartphone–style upgrade/abandonment pace is absurd and decadent. I won't buy another iPad no matter how fancy they make it; I'd rather buy a small, dull laptop because it will last longer. Longevity trumps shiny objects and overblown conveniences in my world.
ROY PLISKO

If longevity is the most important factor, you're probably right to invest in a laptop or desktop, assuming you can go without the unique qualities mobile devices offer. Personally, I think a few years of quality service are enough to justify the purchase of an iPad. The original model fell behind faster than usual, but the first revisions of a new product will always make the biggest leaps forward as manufacturing catches up. In any case, competition drives tech forward, and Apple can't just sit out.

Return of the Mac!... We're still receiving support for a little retro Apple indulgence.

Return of the Mac

I'm a little skeptical about Sam Hastings's idea for a column about getting more use from old Macs (Share, Jan 2015), but it inspired an idea of my own. In that same issue, you featured a few nostalgic apps in your "40 Best iOS Apps" feature (Hanx Writer, Classic Note, Spaceward Ho!) – why not create a column about stuff like that? It could be a little whimsical. You could call it "This Old Mac," or maybe "Return of the Mac," like the '90s song. I personally like your magazine because it is very up-to-the-minute, but I would also read that kind of column.
ZACK TAYLOR

Apple Pay security issues...

I have a security concern about Apple Pay. Since it's so easy to put card information into an iPhone 6, is there anything to prevent clerks, waiters, and so on, from adding the card details to their iPhone and then using Apple Pay to purchase things? I know people can always steal credit card info the old-fashioned way by writing down the details then ordering items over the phone or internet, but Apple Pay seems to make it easier for them to buy in person. Maybe it would be a good idea to make it so that a card can only be registered with one device?
BRUCE CHRISMAN

I'll give you credit, Bruce: you've constructed the only situation we've heard of in which Apple Pay doesn't make payments more secure. Still though, as with traditional credit card fraud, the bank would catch on as soon as a thief purchased a couple items you normally wouldn't buy, from places you usually wouldn't visit. Overall, Apple Pay is a much safer way to shop, which is why banks love it.

Interesting idea, and I especially like your title suggestions. It might be worth doing a column just so we could call it "Return of the Mac." While we're on this subject, thanks to everyone who wrote in to share their opinions on a column about classic Macs. I can't yet say if we'll do something along those lines, but we've added a couple new columns this month and more are coming, so you never know!

Apple Pay – safer than the old way!

START

Big profits? Apple could consider giving customers longer warranties and more iCloud space. We're just saying…

Should Apple invest in its customers?

Amid record-breaking profits, Apple should consider ways to improve customer satisfaction even further

BY MATT BOLTON

DURING APPLE'S LATEST earnings call, it became clear that the company had not just had a very good quarter, or even an excellent quarter. It had the most profitable quarter of any company ever. It made a profit of $18 billion in those three months, despite actually missing out $3.7 billion in revenue because of currency fluctuations, according to Chief Financial Officer Luca Maestri. For comparison, Google's total revenue for the last quarter was $14.5b – meaning that Apple made more in profit than Google made in total before deducting costs. And Google's not exactly doing badly.

It's an astonishing amount of money, but perhaps makes sense when you consider that Apple shipped its one billionth iOS device during that quarter, a level of popularity that perhaps everyone would have struggled to imagine back when the iPhone was first announced, and Steve Jobs said the company was aiming to take just

1% of the global phone market at first. The sales success has been thanks in no small part to phenomenal growth in China, where revenues increased 70% compared to the same time last year.

EVER SINCE APPLE started making this kind of profit, there have been questions over what it should do with its huge cash reserves. Some analysts and commentators have suggested that Apple should be buying other large companies – everything from Nintendo to Tesla has been mooted – and criticizing Apple for not making more of its money.

We'd like to see Apple using its money in a different way. Apple has always fared very well in customer satisfaction surveys (almost always at the top), but we think it should invest its cash in customer support. For a start, longer warranties would set Apple apart from its competitors – imagine if AppleCare was effectively free with every purchase. That alone would make its products a better-value purchase, because you could be more confident of their longevity.

Second is something that we're not the first to suggest, but would be excellent: give users 5GB of iCloud space per iOS device for free, rather than in total, so they never have to worry about having the space to back up. It's great for us, and it's a good selling point for Apple.

It's a win–win – users get better support, and Apple gets good press. We hope it's considering the option.

Thunderbolt 3 and the 5K Display

Will the new Thunderbolt coming later in 2015 be a must-upgrade feature? **BY MATT BOLTON**

JUST A FEW years ago, we were waiting for Thunderbolt to arrive, getting much more excited than we like to publicly admit about the connections speeds it promised. But it all just goes to show how our satisfaction doesn't last very long, because here we are willing the third version of the technology to appear. There's a very good reason for that, though, and it's not about transferring files faster. Well, it's not *entirely* about that.

Thunderbolt 3 will include DisplayPort 1.3 as part of its spec – a big boost over the DisplayPort 1.2 spec used in Thunderbolt 2. DisplayPort 1.2 maxes out at running a 4K display at 60Hz – not too bad by any means, but not enough for a 5K screen. The Retina iMac actually uses two cables internally to transmit all that data from the graphics chip to the display, but we can't imagine Apple going for that on, say, an external 5K Thunderbolt display. It would want one cable for everything, as the current model offers. That's what you get with Thunderbolt 3 and DisplayPort 1.3, as well as the ability to run two 4K displays simultaneously from a single port, if that's more your style. In fact, DisplayPort 1.3 can even run 8K displays, though we doubt Apple is planning on releasing a 43-inch, 7680x4320 screen just yet.

For all the 5K excitement , Thunderbolt 3 will also be faster than Thunderbolt 2. Twice as fast, in fact, at 40Gbps. That's five gigabytes of data every second. Barely anything will be able to even use that – but it's always nice to have headroom. Gigabits and gigabits of headroom…

Thunderbolt 3 will be introduced as part of Intel's Skylake processor family, which is due at the end of 2015. Whether that turns out to be an accurate schedule remains to be seen, seeing as Intel has struggled so badly with releasing its Broadwell processors. DisplayPort 1.3 is actually available for manufacturers to use now, but we doubt we'll see it on Macs without Thunderbolt 3 – Apple relies on Thunderbolt for the display output in many Mac models. But at least looking at Intel's schedule gives us an idea of when we can hope to see that 5K Thunderbolt display.

You could transfer a Full HD movie every second with Thunderbolt 3, if that's what floats your boat.

EARLY ACCESS

Pre-release games and software available now

CHAOS REBORN $19.99

This turn-based strategy battle game pits wizards in a duel by casting spells to summon creatures or directly attack each other. It's all about the risk/ reward here, with everything you do having a percentage chance of success. It feels like there's a lot of balancing to be done before it's ready, but it's fun even now.

VERSION TESTED: 0.23

THE LONG DARK $19.99

This survival game puts you alone against the cruel Canadian wilds. Dumped in the forest, you're cold, tired and hungry. Find shelter and supplies quickly else you'll up frozen stiff or eaten by wolves. It's already compelling, but only the sandbox mode is available, which can feel aimless at times. A story mode is planned for later.

VERSION TESTED: 0.183

Can streaming finally strike the cord?

A world without cable is nearly upon us

BY MICHAEL SIMON

EVER SINCE WE first laid eyes on Apple TV, we've been dreaming of the day when on-demand television would be the industry standard. But cable companies haven't loosened their hold on what we want to watch, making the dream of à la carte entertainment an elusive one.

That's changing. Slowly but surely, content providers are breaking the bond they have with cable companies, and 2015 looks to be something of a watershed year for cord-cutters. For starters, HBO is making its HBO GO streaming service available to anyone for a monthly fee; the only way to view the network's latest shows has always been to go through a cable operator, so a separate subscription for GO is a huge shift in this manner of thinking.

Dish Networks has similarly announced a standalone Sling TV service that will deliver 12 popular cable channels (including ESPN, TNT and Cartoon Network) for $20 a month. Showtime has also signaled a willingness to follow in HBO's footsteps, and suddenly the possibility that you won't have to subscribe to dozens of channels you don't want is very real. Depending on what you watch, there might not be huge savings – especially when you factor in the cost of a speedy broadband connection – but you won't be tied to multi-year plans anymore and cutting your monthly bill will be a whole lot easier.

And with Apple TV as the center of it all, it could mean the end of ugly interfaces, too.

>THE SHIFT

Software is dead! Long live software (subscriptions)!
The way we pay for software is changing and
DAVID CHARTIER thinks that's absolutely fine

THE WAY WE GET software isn't changing just with the rise of a centralized, one-click App Store. There is a fundamental shift from paying a lot up front to a little over time, and it's probably for the better.

THE APP STORE increased competition and turned many, many more people onto the idea of seeking out apps to solve particular problems. As prices began falling, the sheer number and variety of apps erupted. The app economy is changing in radical ways, but it's still just as difficult – and in some cases even tougher – to make a living or run a software business, whether you're an indie operating from a garage, or Microsoft.

At the same time, more of us now want to work and play across multiple devices, including a tablet and maybe even other OSes. In the face of this increasing complexity, rising costs, but falling prices, developers are steadily shifting from single purchases to subscriptions.

Adobe used to charge hundreds of dollars... now CC apps start at just $10 per month

Instead of a standalone writing app for a few bucks, or a professional photo editor for a couple hundred bucks, you can pay a few bucks a month for Evernote and Photoshop.

If you have not already thrown this article across the room in protest, there are some great benefits for both sides of the table. I've spoken extensively with consumers and businesses in my career, and they both extoll one of the best perks: no more surprise upgrades. Keeping in mind that competition has already made quite the dent in prices over the last few years, Evernote, where I'm writing this, is $5 per month or $45 per year. Where Adobe used to charge hundreds or thousands of dollars up front for its apps, its new Creative Cloud applications start at just $10 per month. You can pay a small price when you need them, and stop when you don't. Even Microsoft Office, one of the oldest standalone software packages, now has an affordable online subscription component that Microsoft is pushing aggressively.

ON THE BUSINESS side, sustained revenue from recurring subscription plans means companies can plan new features, build infrastructure, and support a growing customer base with far fewer headaches. Think about it this way: would you like to get your entire year's salary in one single check, or in regular installments throughout the year? The former sounds fun, but in reality, most of us would likely end up on the street.

Another advantage of subscriptions is that you might not even need to pay for some of your apps. Evernote, for example, has

Accessing Adobe apps by subscription makes the software more flexible and affordable.

a fairly generous free version that works great for plenty of people, and the company is happy to have the exposure. Asana, one of my favorite collaborative project managers, also has a perpetually free tier.

Change is rarely easy. But the more I've thought about it and talked with developers, I really think this is going to be great for consumers and businesses alike – better apps, cheaper prices, and fewer surprises.

>>>David Chartier is content strategist at AgileBits, developer of 1Password, and a writer with vast experience in analysing the tech world. He runs the website *Finer Things in Tech* (finerthings.in) and hosts its podcast, The Finer Things In.

6 Apple Watch Accessories

With the phones accessory market worth $20b, it's no wonder accessory makers are ramping up for the Apple Watch!

Want to be a fly on the wall? You can! Netatmo uses facial recognition to keep you informed.

The HEDock is the perfect stand to go alongside an iMac or MacBook Pro on your desk.

The reclaimed walnut and leather DODOcase stand would look great on any bedside table.

PEOPLE OFTEN THINK we must sit on thrones made entirely of MacBook Pros and iPads here at *Mac|Life*, but while that, sadly, isn't true, we *could* fashion a chair from all the iPhone cases kicking around the office that would put the Iron Throne to shame.

It's not hard to see why there are so many iPhone cases in the world – they're cheap to make and there are now more than a billion iOS devices out there that need protecting. And that's before you get to the speaker docks, batteries, Bluetooth thermometers and the like.

The next gold rush is for Apple Watch accessories. Here are a few of the ones that we know are coming; predictably, many are focused on charging, but there are some more innovative ideas here too—and it's just the beginning!

1
Standap
This smart idea – an Indiegogo campaign which is unfunded as we write – lets you convert the Watch's strap clasp so you can use any standard 22mm strap. It should be available in aluminum and steel for $25, and in gold for a bit more…

2
Netatmo Welcome
This camera uses facial recognition to alert you when family arrive home, or when a stranger is in your house, and will notify your Apple Watch through its app.

3
DODOcase Charging Stand
Made with reclaimed California orchard walnut and American-tanned leather this stand, from the same folks who brought us some stunning boutique iPad cases will cost between $60–$80 when it ships in April.

4
Standzout Bandstand
Like with the DODOcase stand, here you nestle the charger that comes with the Watch into a hollow in the surface. This stand also features a swiveling face and two additional USB ports so you can also charge your iPhone and other devices. Expected price: $70.

5
HEDock
This simple stand ($49) is made from brushed aluminum with "an environmentally friendly finish."

6
Rest Composure
This simple design, with a walnut top and a steel bottom, has a hidden track for wires. Designed and made in the USA; preorder price is $79, but it will be $94 once it goes on general sale.

The Rest Composure gives your Apple Watch a fetching plinth on which to recline and recharge.

The Everyday Gourmet: The Joy of Mediterranean Cooking

Taught by Chef-Instructor Bill Briwa
THE CULINARY INSTITUTE OF AMERICA

LECTURE TITLES

1. Tastes of the Mediterranean
2. Butter and Cheese—Northern Italy
3. Classical Italian Cuisine—Central Italy
4. Bounty from the Sea—Southern Italy
5. The Everyday Joys of Olive Oil
6. Paella—The Landscape of Spain in a Pan
7. A Spanish Tradition—Tapas and Sherry
8. Tunisia—The Home of *Harissa*
9. Technique and Polish—Mastering Moroccan Food
10. Health and Wellness—A Mediterranean Diet
11. Sharing Abundance—The Cuisine of Greece
12. Tastes from the Palace Kitchens of Istanbul
13. A Favorite Street Food from the East
14. Foundations from the South of France
15. Fresh Catch—Seafood of the French Riviera
16. Bringing the Mediterranean Home

Master a Delicious Cuisine

Numerous studies have demonstrated the power of a Mediterranean diet to reduce the risk of heart disease, and there's evidence linking it with the potential to prevent diabetes and cancer as well. And, as luck would have it, it also happens to be one of the most flavorful, fresh, and varied cuisines in the world.

In the 16 step-by-step lessons of **The Everyday Gourmet: The Joy of Mediterranean Cooking**, presented by Bill Briwa, a top chef-instructor at the prestigious Culinary Institute of America, you'll learn how to revitalize your culinary repertoire by creating iconic Mediterranean dishes—from paella and bouillabaisse to falafel and authentic Neapolitan pizza—right in your own kitchen. This culinary journey through Morocco, Spain, Italy, southern France, Greece, Turkey, and Tunisia arms you with a wealth of traditional, chef-tested recipes, plus newfound knowledge of how to use Mediterranean flavors and methods to enhance your everyday cooking.

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>GAME LOOP

Is this all that there is? **BRIANNA WU** considers whether there will ever be a market for deeper gaming experiences on iOS

LAST WEEK, I was in France judging the mobile game of the year with one of the men that developed Candy Crush. We booted up a story-based game to evaluate, and were treated to a beautiful opening animation. He squinted with disappointment.

"I hate it when a game makes you sit through a long intro," he scolded. "Just get to the gameplay! Users don't want to wait!"

As someone who got into game development to tell stories, my gut instinct was to argue that characterization takes time. Then I remembered that King has almost a billion dollars in the bank, and I decided to close my mouth and listen instead.

I FIND MYSELF asking what the future of mobile games is. In 2011, when I founded Giant Spacekat, I felt certain the explosion of new, casual gamers would grow in their tastes and eventually desire deeper experiences. I thought that the popularity of Candy Crush was a fad. Now, I'm not so sure.

My soul lies with story-based games, but I admit that I've played a lot more Tiny Tower on my phone than Walking Dead. It's gotten a lot more of my money, too. Form follows function, and the form of the iPhone encourages software

with ephemeral, short experiences. Monument Valley, a beautiful iOS masterpiece, was created with a budget of almost a million dollars. While it might be considered one of the deeper experiences on the platform, it's a streamlined version of Captain Toad for Wii U, a game rightly critiqued as "a bit thin" by console standards.

Console quality games will continue to come to your phone, like the excellent iOS remake of Indigo Prophecy. But they will be the exception, rather than the rule.

Form follows function, and the iPhone encourages short, ephemeral experiences

I'VE NOTICED THAT when I do play "hardcore" games, I tend to play them on my iPad. XCOM and Vainglory just don't feel right on a 6 Plus, but I lose hours every time I pick them up on iPad. But most people don't buy every size and shape of Apple device. They have an iPhone they update every two years, and an iPad in the house they'll update every three at best.

To me, the tragedy is that new technologies such as Apple's Metal API really do allow iOS games to compete with console experiences. But the truth is, the market for games that use it is smaller, and dev costs are larger. Apple devices have the power for console-quality graphics, but there's limited incentive to create them.

My hope for deeper mainstream experiences on iOS lies with the rumored next-gen Apple TV. Form follows function, and there's something about sitting back on the couch that encourages deeper immersion. It's hard to imagine the game Life is Strange as a big hit on iOS, but on an Apple TV in a living room, it's easy to see Apple's diverse audience falling in love with a story-based, non-violent game. It just needs the right form.

Monument Valley is beautiful and challenging, but short and simple. Is that how it has to be?

>>>Brianna Wu is the head of development at Giant Spacekat, developer of Revolution 60 on iPhone and iPad, and is a regular speaker at industry events, as well as host on the podcasts Isometric and Rocket.

CRAVE

THE GEAR WE'RE LUS[T]

1 HP Z34c
www.hp.com
$999

>>> People often make fun of curved displays as being pointless gimmicks, but they miss one very important fact: they look *so cool*. This new 34-inch screen from HP is awesome in many other ways too, particularly its ultra-wide 21:9 aspect ratio (cinema widescreen) and detailed 3440x1440 resolution. HP also announced a 27-inch 5K display to match the Retina iMacs, but since no other Macs support 5K displays yet, it doesn't do that much for us. Also, it isn't curved.

2 Mercedes-Benz F 105

www.daimler.com
$Quite a lot

>>> Self-driving cars are coming, and the roads will likely be a lot safer for it. But they'll also be a lot more comfortable – at least, if we all buy our new autonomous cars from Mercedes. The F 105 is Mercedez-Benz's answer to what cars of the near-future should be like: its four chairs all swivel round, so passengers can enjoy a lounge-like experience while on the move. Six displays provide plenty of feedback, and there are still some good old-fashioned car controls, if you get nostalgic.

3 Chamberlain MyQ Garage

www.chamberlain.com
$130

>>> Remember when remote-controlled garage doors were futuristic? Make parking your car feel fancy all over again by controlling your door from your iPhone! Chamberlain's kit cleverly slots into an existing garage door remote system, instead of putting you through the hassle of replacing it. This HomeKit-compatible set gives you a Wi-Fi hub and door sensor, meaning that you can use Siri (or an app) to open and close the garage door, or, when paranoia strikes, you can just check that you did remember to close it. Yes, you did. Definitely. Did you? Oh, God…

4 LG WM9500H

www.lg.com
$TBC

>>> This washing machine qualifies for Crave status by being very, very useful. Specifically, by being two washers. It gives you a big drum up the top and a small one at the bottom that operate independently. You can use the weirdly-capitalized TWIN Wash™ system with LG's equally ridiculously named HomeChat™, EasyLoad™, ColdWash™, TurboWash™ 2.0 and TurboSteam™ features, and there's Wi-Fi connectivity, which every fancy new appliance apparently needs.

$50 iTunes Card

How would you blow 50 bucks on music, movies, books, TV shows, and apps?

BY MATT BOLTON

1

BREATHING MACHINE
Leigh Alexander
$4.99

This memoir from video games and culture writer Alexander is a warm, honest look back at growing up in the early days of home computers. It's her story, but the truths will resonate with anyone. Stories of things like struggling with the language of computers – the friction between our natural choice of phrasing and what a command line or a text adventure expected – are familiar in a way that brings the blocky text and beige plastic rushing back. If you enjoy the book, check out Alexander's YouTube channel, where she revisits games from the Apple][e and Commodore 64 era.

2

12 MONKEYS
Aaron Stanford, Amanda Schull
$24.99 HD Season Pass

Coming firmly from the "Crazy enough to apparently work, somehow" school of TV ideas, Syfy's new series adapts Terry Gilliam's time- (and mind-)bending 1995 film about a man sent into the past to prevent a disastrous future. The series starts with the same premise of seeking the source of a virus, but feels like a new way of telling the story. The cast, especially Stanford, do a great job of making the outlandish events convincing, and we love that the show isn't shying away from letting the time-travel aspects be complex. It all means we can even forgive the lack of Bruce Willis or Brad Pitt. (Cameos, anyone?)

3

GONE GIRL
Ben Affleck, Rosamund Pike, Neil Patrick Harris
$14.99 HD

This tortuous psychological minefield of a film (would you expect anything less from director David Fincher?) follows Nick Dunne (Affleck) after his wife Amy (Pike) goes missing on their wedding anniversary. Media scrutiny turns on the case, and through the lens of Nick Dunne struggling with his perceived persona once in the spotlight, and flashbacks to Nick and Amy's marriage, we see that very little of the pair's life was as it seemed. As layers peel back, new twists are revealed, making for an engrossing, fascinating look at both private relationships and the public eye.

4

SHADOWMATIC
TRIADA Studio
$2.99

Strange abstract objects float mysteriously in a room. A harsh spotlight projects their silhouette on the wall. At first, the shadows are nonsense, but rotate the objects a bit this way, change the order of them that way… it's a fish! Shadowmatic is a lovely, slow-paced way to while away your time – fiddling with shapes and solving brainteasers. A hint system and non-linear progression through the puzzles help keep it casual.

TOTAL SPEND
$47.96

Speakers that make great pillow talk.

Go to bed with the iDL46 Dual Charging Alarm Clock Radio. You can now wake or sleep with the playlists that tickle your fancy while keeping your smartphone and tablet fully charged.

iHome.
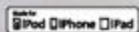
Master your Mac today!

Whether you want to be more efficient, solve problems or just get more done, we'll show you how – with dozens of tips to help you boost your Mac's performance

BY KENNY HEMPHILL

W **HATEVER YOU** use your Mac for – whether it's work or pleasure, whether you spend hours in front of it every day or only a couple of hours a week, and whether you've been using OS X for years or are a relatively recent adopter – the chances are that you're not using it quite as efficiently or effectively as you could be.

It might be that you're clicking and pointing at menu items instead of saving time with a keyboard shortcut, or that you haven't configured text shortcuts that suit the way you work; maybe you keep inadvertently invoking Mission Control or Safari's tab previews because your trackpad isn't set up for your work activities.

But no more! Over the course of this guide, we'll fix that. We'll show you how to set up your Mac so it's perfectly suited to the way you use it and so that you can get the most out of it, whether for work or fun. We'll help you iron out the wrinkles that creep into all of our routines, troubleshooting problems, cutting stress and saving you time.

And, as if that's not enough, we'll show you how to make your Mac run faster, too…

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Improve the way you interact with your Mac

Swipe four fingers this way for this, tap two fingers for that: customize your trackpad and Magic Mouse to do the hard work

Mouse and trackpad tips

1 CUSTOMIZE TRACKPAD GESTURES
Open System Preferences > Trackpad. Click on the first tab, Point & Click. If you'd rather tap your Mac's trackpad than press down to click, check the first box. If you want to add a secondary click (a ctrl-click action), check the next box down and choose one of the options from the drop-down menu.

The next option is very useful. Check it and you can tap any word in any document with three fingers to look it up in the Dictionary, Thesaurus and Wikipedia. Finally, to move windows by dragging with three fingers, check the bottom box.

2 CONTROL THE WAY YOU SCROLL AND ZOOM
Your Mac is configured to allow you to zoom in and out of images and web pages by either pinching and unpinching with two fingers or by tapping the trackpad with two fingers to activate what Apple calls Smart Zoom. That can be very useful, but can also be confusing if, say, you tend to leave your thumb resting on the trackpad. To switch off this behavior, tap the Scroll & Zoom tab in the Trackpad System Preferences pane and uncheck the second and third boxes. If you don't want to rotate an image with your fingers on the trackpad, turn that off, too.

3 CHANGE THE DEFAULT GESTURES FOR NAVIGATING IN OS X
In OS X, you can activate Launchpad or Exposé and slide between full-screen apps using either three or four fingers to swipe across the trackpad. The default is four, but we prefer to use three. To change it, click the More Gestures tab in the Trackpad pane and make sure the relevant items are checked. Choose "Three fingers" from the drop-down menus. If you set swiping between full-screen apps to use three fingers, make sure you also set the "Swipe between pages" option to two fingers to avoid confusion.

4 USE GESTURES IN QUICKTIME PLAYER
In addition to system-wide gestures, there are some that only work in specific apps. In QuickTime Player, drag two fingers from left to right across the

Be careful when customizing some of the trackpad shortcuts – they can be triggered accidently by resting digits.

trackpad to scrub forwards through video. To return to normal speed, just lift your fingers from the trackpad. Drag two fingers from right to left to scrub backwards. The further across the trackpad you drag, the faster the video will go. To enter full-screen mode, spread two fingers across the trackpad. To leave full-screen, pinch with two fingers.

5 **CONFIGURE SCROLLING WITH THE MAGIC MOUSE**
Apple's Magic Mouse uses many of the same gestures as the trackpad, and you can customize these as well. To change the direction in which pages scroll when you swipe up and down with one finger, open the Mouse pane in System Preferences and click Point & Click. Uncheck "Scroll Direction: Natural" (that's "natural" according to Apple, anyway).

You can switch off the right-click option of the Magic Mouse here, if you find the lack of a separate external button confusing (or hard to press with consistency). We find, though, that if you leave it on, you'll eventually get used to it.

6 **CUSTOMIZE NAVIGATION GESTURES FOR THE MAGIC MOUSE**
You can swipe between pages and full-screen apps, as well as activate Mission Control, using gestures on the

The sleek Magic Mouse acts as both a mouse and a trackpad in one. It takes some getting used to, but it's a real time-saver.

Magic Mouse. Navigating pages can be done with one or two fingers. If you set it to one, make sure you uncheck the "Swipe between full-screen apps option" in the More Gestures tab of the Mouse pane to avoid potential confusion.

If you don't use Mission Control, you might want to uncheck the box that allows you to activate it with a double-tap, so you don't keep launching it by accident. Finally on the mouse front, if you ever want to check your mouse's battery level, click the Bluetooth menu bar item and hover over the Mouse that's currently connected to see the charge remaining.

Keyboard shortcuts

1 **NAVIGATE THE FINDER**
These three shortcuts are great for navigating the Finder quickly and opening the precise folder you want to go to. Hit ⌘+⇧+A in the Finder to open a new window to the Applications folder. Swap the "A" for "U" – so ⌘+⇧+U, instead – and it will open the Utilities folder. ⌘+⇧+D, on the other hand, goes to the Desktop. You can also use these keyboard shortcuts in an open Save dialog box to navigate to the respective folders in order to save files there.

2 **USE REFERENCE SOURCES**
We described earlier how tapping with three fingers while the cursor is over a word looks up that word in the Dictionary, Thesaurus and Wikipedia. If you don't have a trackpad or Magic Mouse, however,

you can press ⌘+ctrl+D while the cursor is over a word (in some cases, such as words with apostrophe-denoted abbreviations like "don't," you may have to select the whole word) to display its definition, synonyms and Wikipedia entry.

3 **TAKE SCREENSHOTS**
Taking screenshots can be useful. To grab the whole screen, use ⌘+⇧+3. If you don't need the whole screen, you can grab either a selected area or a window. To grab an area you define, press ⌘+⇧+4 and then drag the crosshairs over the area you want to grab and let go. To grab a window, press ⌘+⇧+4 and then Spacebar. Hover the camera icon over the window you want to capture and press the mouse or trackpad button.

It might take a while to learn these keyboard shortcuts, but after a while they'll become second nature.

4 FORCE QUIT APPLICATIONS

It's rare that applications grind to a complete halt, but if they do, forcing them to quit usually solves the problem. To force-quit any open application, press ⌘+⌥+esc. This pulls up the Force Quit window, from where you can select the app you want to force to shut down. If you'd rather force-quit the app you're currently using without displaying the window, use ⌘+⌥+⇧+esc instead.

5 SWITCH BETWEEN OPEN APPLICATIONS

OS X's application switcher is one of its great secrets; it's incredibly useful, yet seldom used. To invoke it, press and hold ⌘, then hit ⇥. You'll see a window appear at the centre of your Mac's screen, displaying the icons of the currently open applications. Press ⇥ again to move the cursor to the next application on the right. Let go of both ⌘ and ⇥ to switch to that application. You can also navigate the application switcher using the cursor keys (▶ and ◀).

6 MAKE THE FINDER MORE USEFUL

Apple has simplified the information displayed in the Finder in recent versions of OS X (mainly by removing most of it), but you can change that if you prefer to see it. To see the status bar at the bottom of a Finder window, simply press ⌘+/ or to see the path bar, use ⌘+⌥+P.

In the Recent Items section of the menu, hold ⌘ when you click to navigate to the folder in which the item is enclosed. In Spotlight, holding ⌘ displays the item's path at the bottom of the window, and pressing ↵ takes you to the enclosing folder.

7 LOG OUT OF YOUR ACCOUNT OR SHUT DOWN INSTANTLY

If you want to log out of your Mac quickly without navigating to the menu, use ⌘+⇧+Q. You'll still need to confirm you want to log out, but all you have to do is press ↵.

To instantly shut down your Mac, without any further confirmation, press ⌘+⌥+ctrl and either ⏏ or the Power button at the top-right of the keyboard (depending on what type of Mac you're using). To put your Mac to sleep rather than shutting it down, eliminate the ctrl key from that sequence – so it becomes ⌘+⌥+⏏ (or the Power button).

8 WORKING WITH TEXT DOCUMENTS

To delete a character to the right of the cursor, you can use ctrl+D instead of ⌫. To go to the end of a line, press ⌘+▶; to go to the beginning, use ⌘+◀. To move to the beginning or end of a word, use ⌥ instead of ⌘. To move to the beginning or end of a piece of text, press ⌘+▲ or ⌘+▼. To select text up to that point, add ⇧ to the sequences.

To switch between open applications, hold ⌘+⇥. This displays a horizontal bar like the one above.

9 MORE TEXT SHORTCUTS
To display the emoji character palette, press `⌘`+`ctrl`+Spacebar. You can now click any character to add it to your document. To see a list of suggestions for your next word as you type, or to see suggestions for how to complete the word you are typing, press `esc`. To display a list of alternative characters, press and hold the character. Pressing and holding "e" displays the letter e with different accents to use in foreign languages, for example.

10 SAFARI KEYBOARD SHORTCUTS
To open a new tab, press `⌘`+`T`, or `⌘`+`N` for a new window. To move to the next tab, hit `ctrl`+`→`, or to the previous one, `ctrl`+`⇧`+`→`. To open one to the first nine bookmarks in the Bookmarks Bar, use `⌘`+ a number from 1 to 9.

To scroll down one full screen on a page, press Spacebar; to move up one screen, hit `⇧`+Spacebar. Finally, you can `⌘`-click a link to open it in a new tab, or `⌘`+`⌥`+`⇧`-click to open in a new window.

11 MAIL KEYBOARD SHORTCUTS
In Safari, press `⌘`+`⇧`+`I` to open a new Mail message and paste in the URL of the page you're viewing. To send a message, use `⌘`+`⇧`+`D`. To reply to a message, hit `⌘`+`R`, or if you want to Reply All, hit `⌘`+`⇧`+`R`. To navigate to your inbox, press `⌘`+`1`, or to go to other mailboxes in your Favorites, press `⌘`+`2`, `3`, and so on. If you want to delete a message without selecting the next one down and marking it as read, press `⌥` as you hit `⌫`.

12 OTHER HANDY SHORTCUTS
To change the volume without confirmation audio alerts (or with them, if you have de-selected the option in System Preferences), hold `⇧` as you press the volume button. To adjust volume in smaller increments, press `⌥`+`⇧` as you press the button.

To quickly search OS X's Help facility, press `⌘`+`⇧`+`/` and to launch an app without opening any of the windows that were open when you closed it, hold `⇧` when you launch it.

Dictation tips

> USE ENHANCED DICTATION
You'll usually need an internet connection to use Dictation, since the processing is done on Apple's servers. To use Dictation offline, you need to enable Enhanced Dictation. Go to System Preferences > Dictation & Speech > Dictation tab and check the box marked Use Enhanced Dictation. Your Mac will download a file so it can do the processing and provide you with live feedback.

> ADVANCED DICTATION COMMANDS
In Yosemite, Speakable Items have been renamed and have changed location. You need to turn on Enhanced Dictation first. When your Mac has downloaded the additional data, go to the Accessibility pane in System Preferences. Scroll to Dictation, select it and click Dictation Commands. Check "Enable advanced commands."

> DISPLAY DICTATION COMMANDS
To display a list of commands that you can dictate to your Mac, tap the `fn` key twice to activate Dictation. Say "Show commands." You can then scroll through them or search them. Dictation carries on listening, so you can hide the list again by saying "Hide commands." Alternatively, you can close or minimise the window using the traffic light buttons.

> USE NATURAL LANGUAGE
When you look at the list of Dictation Commands, you will notice that they are abbreviated, such as "Go to end of paragraph," "Go to beginning," and so on. That doesn't mean you have to speak them like that, though. Dictation is smart enough to understand natural language, so you can say "Go to the beginning of the paragraph" instead.
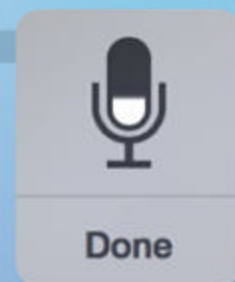
> CREATE YOUR OWN COMMANDS
To create a command that types what you say, open the Accessibility pane in System Preferences and select Dictation. Click Dictation Commands and then the "+" sign. Type "maclife" in the When I Say box, then choose Paste Text from the Perform list. Type "MacLife" into the box that sits below.

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GEEKS ARE CLOSER THAN THEY APPEAR

22 amazing system tips that really work!

Check out these handy pointers that not only save you time and make you more efficient, but are kinder to your Mac too

> QUICKLY RENAME FILES

In Yosemite, you can batch-rename files right in the Finder. Open a new Finder window and select all the files you want to rename by ⇧-clicking the first and last files (if they're all together), or ⌘-clicking each one (if they're not). Right-click on the files and choose "Rename x items," where x is the number of selected items. In the window that pops up, you can choose how to format the filenames and whether to replace or add text, for example to number them.

> DISCONNECT FROM A WI-FI NETWORK

This is now quick and easy to do in Yosemite. Hold ⌥ and click the Wi-Fi menu. You'll see a raft of options, along with data about your current connection. Underneath the current network is the option to "Disconnect from xxxx" (with "xxxx" being the name of your network). Click on it and you're disconnected.

> FORCE SAFARI TO DISPLAY THE FULL WEB ADDRESS

Safari no longer displays the full URL in the address bar. You can change this and make it display the whole address by going to Preferences in Safari, clicking on the Advanced tab and checking the box marked "Show full website address." Meanwhile, if you don't like the Spotlight suggestions that pop out of Safari's address bar, you can turn those off in the Search pane of Safari's preferences: uncheck "Include Spotlight Suggestions" opposite "Smart Search Field."

Sometimes you might want to see a full URL to see a reference point from, say, amazon.com.
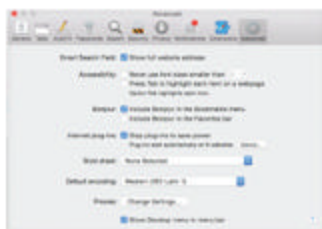
> RECORD YOUR iPHONE OR iPAD OUTPUT ON YOUR MAC

Before Yosemite, if you wanted to create a video of your iPhone or iPad screen, you needed additional hardware and software such as Elgato's Game Capture HD. Now all you need is your iOS device's USB cable.

Plug the cable into the Lightning port on your iPhone or iPad and then into a USB socket on your Mac. Launch QuickTime Player and choose New Movie Recording or New Audio Recording from the File menu. By default, QuickTime will take input from your Mac's iSight camera, but you can change that by clicking the down arrow next to the record button and choosing your iPhone or iPad. Now when you press record, QuickTime will grab the audio and video output from your iOS device and record it. You can use it to make play-through videos of iOS games, video reviews of apps, or anything else you want to grab.

> **ANNOTATE IMAGES AND PDFS IN PREVIEW**

Preview enables you to annotate and, in Yosemite, sign PDFs. Open an image file or PDF in Preview and click the Toolbox icon. To add text, click the "T", or to draw a shape, click the shape menu and choose one from the drop-down list. To draw freehand, click the pencil. You can change the color and the thickness of the lines, too. When you draw a shape freehand in Yosemite, Preview automatically smoothes it.

To sign a PDF document digitally, Preview enables you to use your trackpad to draw a signature. In Yosemite, click on the signature button next to "T" and select Trackpad. Click the button to begin and then sign your name using your finger on the trackpad. Press any button to finish, and then drag the signature to the place in the document.

> **CHANGE THE DEFAULT APP FOR OPENING A FILE**

What if a file opens in an application other than the one you want? To fix that, right-click or ctrl –click the file in Finder and choose Get Info from the drop-down menu. In the window that opens, two-thirds of the way down, click the menu under "Opens with" and choose the application you want. If you want every file of that type to always open with the same application, click Change All.

> **PERFORM CONVERSIONS IN SPOTLIGHT**

You no longer have to head to Google to convert measurements, currency, or anything else - in Yosemite you can do it in Spotlight from Finder. Open Spotlight, type in "100 dollars" and you'll see a list of conversions to other currencies in the results window. Try another; for example, "68 f" (for Fahrenheit) shows the temperature 20° in Celsius, and "16 miles" displays that distance in kilometers and, below that, several other units. You'll soon be converting all sorts of stuff in Spotlight.

> **CREATE A GROUP ACCOUNT**

When you set permissions to control access to folders in OS X, you normally set them on a user-by-user basis. If you have lots of user accounts, that can be laborious. The answer is to create group accounts and use those to set permissions for everyone at once. To do this, go to System Preferences and Users & Groups. Click the + at the bottom of the window, select Groups from the menu, give it a name and then Create Group. Now click the new Group and check the box next to the users you want to add to it. Make sure you trust each user in the group before giving them powers!

> **CHANGE YOUR MAC'S DEFAULT EMAIL APP AND WEB BROWSER**

OS X sets Mail as your default mail browser, so when you click a mail link in a web browser, it opens Mail. That's fine if you use Mail for email; if you don't, you can change the default by opening Mail > Preferences (from the Mail menu). Click the General tab and then pick another installed email client from the "Default email reader" drop-down menu.

To change your default web browser in a pre-Yosemite version of OS X, open Safari and go to the Preferences > General tab. In Yosemite, open the General tab in System Preferences and choose an app from the menu next to "Default web browser." Again, only those apps you have installed will be shown.

> SET UP iCLOUD KEYCHAIN

You can use iCloud to share passwords between your Mac and iOS devices. First set it up on your iPhone by navigating to Settings > iCloud > Keychain and turning the setting on. Choose a passcode by following the prompts on screen.

On your Mac, go to System Preferences, then iCloud. Check the box next to Keychain. Now choose whether or not to set a password to unlock the screen. Next, you'll need to type in your Apple ID password. When that's done, iCloud needs to get verification from the iOS device you just set up. Click "Use Code" and a passcode will be sent to the iPhone you just set up. Type the code into the box on your Mac to complete the verification.

> BOOT FROM ANOTHER DISK OR PARTITION

Whether you want to run Windows using Boot Camp, a beta version of the next Mac OS, or need to repair your startup disk, booting from another partition is very useful. Go to System Preferences > Startup Disk and then click the disk you want to boot from (if it's plugged in), or restart your Mac holding ⌥ and select the disk volume you want when prompted. Use the latter method to boot into OS X's Recovery Partition.

> DIAGNOSE PERFORMANCE ISSUES WITH YOUR MAC

If your Mac is running slowly or you experience other performance problems, fire up Activity Monitor (it's in the Utilities folder if you need to find it manually). Click the CPU tab and then the "CPU %" column. You should be able to see if any processes are hogging CPU cycles. If you find one, press X in the toolbar to quit it. Click the Memory tab to see similar information for RAM usage, and Energy to see which apps are sucking your MacBook's battery life. Activity Monitor has a wealth of useful information; click a column heading to sort data by that column.

> CALCULATE TRAVEL TIME TO APPOINTMENTS

On any Calendar appointment with a location attached to it, double-click the appointment to open the info window. Click the date and time and in the window that opens, click the "Travel time" menu. Calendar calculates the walking and driving time from your Home or Work address. For detailed directions, click the map.
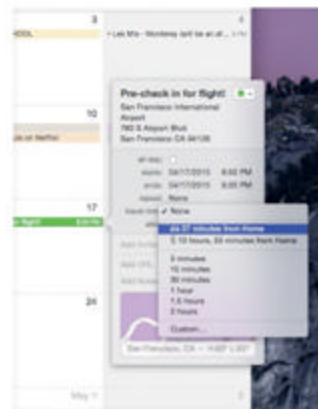
> CONFIGURE SPOTLIGHT TO MAKE IT MORE USEFUL

By default, Spotlight first lists Applications that meet your search criteria, followed by Spotlight suggestions (in Yosemite). If you normally use it to find files or folders instead, go to System Preferences > Spotlight, and then click and drag Documents to the top of the list. Repeat this same process for Folders, if necessary. Uncheck any categories for which you don't want results. If you want to exclude folders or volumes altogether, click Privacy and drag them into the window; they're then removed from Spotlight searches altogether.

> MANAGE NOTIFICATIONS
Too many Notifications flashing up on your screen? Control them in Notifications' preferences. In both Mavericks and Yosemite, you can control which apps display notifications and how they do it. Go to System Preferences and open the Notifications pane. First of all, choose when Do Not Disturb should apply. Then click each app in turn and check the boxes in the main window to dictate whether the app should be in Notification Center and how it should alert you to new notifications.

Finally, choose whether to sort Notification Center by time or by manually choosing which apps come first.

> FIX DISK PROBLEMS
If your Mac is misbehaving, a good first step is to open Disk Utility (in the Utilities folder in Applications, or simply find it using Spotlight).

Click your startup volume – usually Macintosh HD – then the First Aid tab. Now click the button marked Repair Disk Permissions. If Repair Disk is currently grayed out, click Verify Disk to check that the disk's file system structure is all right. If that reports problems, you may be able to fix them in Disk Utility; finally, run Repair Permissions to make sure files and folders have correct access rights.

> MAKE USING YOUR MAC MORE COMFORTABLE
The increasing use of animation in OS X – along with the introduction of translucent backgrounds for some windows – has made life rather uncomfortable for some users. If that happens to be you, go to System Preferences > Accessibility > Display and then check the box marked Reduce Transparency. Experiment with the other options to see which work best for you. To invoke Yosemite's Dark Mode, go to the General pane and check "Use dark menu bar and Dock."

How to share a USB printer on a network
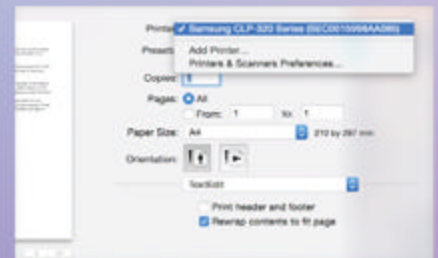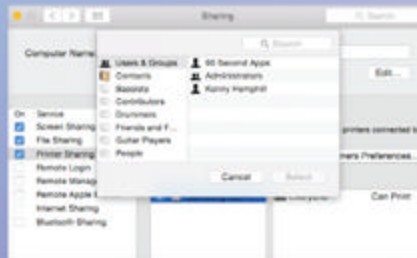
1 CHOOSE THE PRINTER TO SHARE
Launch System Preferences then go to the Printers & Scanners pane (it's on the second row, second from the right). Click any installed printer you want to share and check the box marked "Share this printer on the network."

2 SET SHARING PREFERENCES
Click the button marked Sharing Preferences. You'll be taken to the Sharing Preferences pane with your printer selected to be shared. Under "Users" you can specify who can print by adding users individually and then setting permissions for them.

3 ADD PRINTER
When you come to print from another Mac on the network, select Print (or hit ⌘+P). In the dialog box click Printer drop-down menu and then select the shared printer. If it's not there, choose "Add Printer" and select it.

> MIRROR YOUR MAC'S AUDIO AND VIDEO OUTPUT TO APPLE TV

If you have an Apple TV and a Mac running Mountain Lion or later, you can view its screen and listen to its audio on any TV connected to an Apple TV unit.

First, make sure the Mac and Apple TV are on the same Wi-Fi network. On the Mac, go to System Preferences > Displays. Click the AirPlay Display menu at the bottom of the Display tab and select your Apple TV. Check the "Show mirroring..." box. Finally, in the Displays menu bar item, select Turn Display Mirroring On.
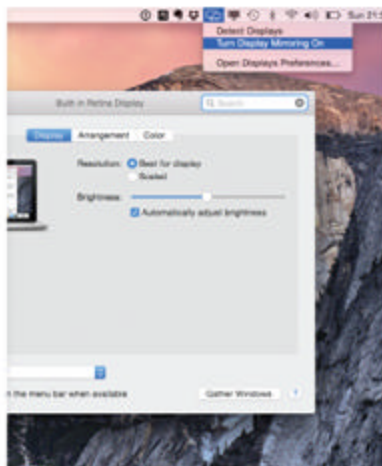
> MANAGE SAFARI BOOKMARKS

Keeping your bookmarks in good order can save a lot of hunting around. In Safari, click View > Show Sidebar > Bookmarks. To remove or rename individual bookmarks, right-click them and choose the option you want.

Otherwise, click Edit at the bottom of the sidebar. You can now create new folders, delete existing ones and drag bookmarks from one folder to another. Click "Show Sidebar" again and this time click the Reading List tab. Right-click items to mark them as read or delete them.

> SET UP PARENTAL CONTROLS

If you have children, you can control what they can access when they're logged into their account. Go to System Preferences and click the User & Groups pane. Click the padlock and type in your password. In the Apps tab, choose which groups of apps you want your child to access, and set an appropriate age restriction for App Store apps.

Click through the other tabs making the selections you want. In the Time Limits tab, you can specify when and for how long your child can use the Mac. Of course, even though they're called Parental Controls, you could use these to restrict anyone's particular usage if you wanted.
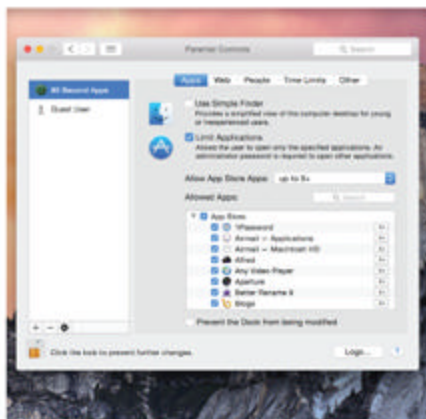
> ACCESS YOUR MAC REMOTELY

Back to My Mac is a part of iCloud that enables you to access files, share a screen and control another Mac remotely. It works with Macs on the same network and over the internet. To set it up, go to System Preferences > iCloud on your main Mac. Check the Back to My Mac option, then click "More" or "Details" (depending which version of OS X you have).

Click the Open Sharing button and check the boxes next to File Sharing and Screen Sharing. To use Back to My Mac over the internet, you'll need to set up UPnP on your router. How you do this depends on your router; usually it's a case of logging in and enabling the UPnP option in its settings.

To access another Mac on the same network, repeat the steps above on that Mac. Now when you open a Finder window, you'll see that Mac listed under Devices. Click it and you can access its filesystem (after a short delay), open files on the remote Mac or copy them to your Mac. Click Share Screen and a window will open, showing you that Mac's screen and allowing you to control it.

Make your Mac go faster

There are lots of things you can do to improve the performance of your Mac. Here are the ones that will have the biggest impact

1 MORE RAM
The more RAM you have, the better. One reason that Macs can run slowly is because apps and processes consume lots of RAM, leaving little for the others. But RAM is expensive, and adding it after you've bought a Mac is becoming difficult. The next best option? Minimise how much you use. Don't keep lots of apps running if you're not using them, and close Safari tabs. Use Activity Monitor to identify apps that are hogging your RAM and then quit them.

2 HARD DRIVE SPACE
The more storage space you have on your boot drive, the better. OS X uses it as a cache when it needs more room than is available in RAM. At the very least,

keep 10% of your storage available for use. Open a Finder window and select "Show status bar" from the View menu to see how much is available. Archive documents you don't need to access regularly, and consider using an external drive for your iTunes Library. Empty your Downloads folder. Use an app such as Gemini to identify and delete duplicate files.

3 DESKTOP CLUTTER
Those files on your Desktop slow down your Mac, too. OS X draws a new window (complete with Preview) for every file on the Desktop, hogging system resources. If you have dozens of documents scattered around, they will incur a performance hit. File them, Trash them, or put them in a new folder called "Desktop Clutter" or the like.

4 SPOTLIGHT AND TIME MACHINE
Spotlight and Time Machine are both terrific features, but they can cause performance issues, particularly if you backup to a network drive or allow Spotlight to index an external volume. To stop Spotlight indexing an external disk, go to System Preferences > Spotlight > Privacy tab. Drag the volume into the window or press "+" and select it. If Time Machine slows you down, you can pause a back-up. Consider using a local external drive for backup.

Keep your Mac's performance lean and mean by regularly culling running apps.

5 SHUT DOWN/DELETE UNUSED APPS

Apps running in the background use resources and most apps now launch very quickly, so there's no reason to keep them open when you're not using them. Quit them, either by right-clicking their icon in the Dock and choosing Quit, or hit ⌘+→ to pull up the app switcher, tab to the app and then hit ⌘+Q. Unused apps tie up disk space, so get rid of them. Use a tool such as AppZapper to go nuclear on them.

6 RESTART YOUR MAC REGULARLY

Many of us (especially those who use a MacBook Pro/Air) only restart our Macs when we have a problem. It's so much easier just to close the lid and let it sleep. But restarting your Mac clears out its cache and re-initializes hardware, so rebooting regularly can have performance benefits. Also, modern Macs – especially those with SSD drives – boot almost as quickly as they wake from sleep. If your Mac is running slowly, restart and see if that helps.

7 TURN OFF VISUAL EFFECTS

If you have an older Mac, animations – such as the way the Dock slides up and down and app icons balloons – can affect performance, so consider switching them off. Go to System Preferences > Dock, or choose Dock from the Apple menu if you're not on Yosemite. Uncheck the boxes marked "Magnification," "Animate opening applications" and "Automatically hide and show the Dock." Click the "Minimize windows" menu and choose "Scale effect."

8 EMPTY SAFARI TABS/CLEAR CACHE

Safari's tabs can be very RAM-intensive. The more you have open, the bigger the performance hit. Close the ones you're not using – bookmark them if you think you'll need them again. Next, open Preferences from the Safari menu – we'll clear its caches, for a full performance boost. In pre-Yosemite versions of OS X, click Reset Safari in the Safari menu, then choose Remove all Website Data > Reset. In

Yosemite, choose "Clear History and Website Data" from the Safari menu and pick an option from the drop-down menu. These do clear your history, though!

9 REDUCE LOGIN ITEMS AND RESTART

Login items are those apps and processes that automatically start when you restart or log in to your account. They're often related to software you no longer need or use. Go to System Preferences > Users & Groups > Login Items. Click the padlock at the bottom-right of the screen, then enter your password. Click the first login item you don't need and click the "-" at the bottom of the window. Repeat for every login item you don't want. Now restart.

10 KEEP SOFTWARE UP TO DATE

Out-of-date software can cause performance problems. In open apps, click the application menu and select "Check for Updates". Download and install them if there are any. Now, go to the App Store pane in System Preferences and check "Automatically check for updates," "Download newly available apps in the background" and "Install app updates."

ULTIMATE
CREATIVE
SETUPS

Whether beginner or pro, we've got the perfect creative hardware for you

There's never been a better time to get serious about digital creativity. Fantastic equipment for every medium makes it possible to produce amazing work, whether you're just getting started or you're a seasoned pro. Here, we look at the ultimate equipment setups for common creative endeavors – music, photography, video production, digital art and podcasting. On one side, we pick the best value equipment for those who are starting out, but want no-compromise results – the gear for getting excellent results without breaking the bank. On the right are the pros' choices – what our experts selected as the equipment they'd go for with a blank check. The dream setups.

So whether you're an amateur looking to take their hobby a little more seriously, or considering investing in some pro-grade gear, enjoy this cream of the creative crop.

1

> **M-AUDIO KEYSTATION MINI 32**
$100
m-audio.com

This is a great MIDI controller with velocity-sensitive keys, on-board controls and iOS connection (using the Camera Kit).

2

> **M-AUDIO AV 30**
$130
m-audio.com

These 30-watt speakers use the same core technology as M-Audio's professional monitors, but they're an awful lot cheaper. Just keep the bass boost turned off...

3

> **FOCUSRITE iTRACK SOLO**
$200
focusrite.com

This fantastic little device has a mic input and instrument input, a built-in mic pre-amp, phantom power for serious microphones and iPad compatibility.

4

> **MAC MINI**
$499
apple.com

You don't need a massively powerful Mac to make music. Apple's littlest Mac is great, although we'd recommend upping the standard RAM. Pair with any monitor.

5

> **SAMSON CO1U PRO**
$130
samsontech.com

Following in the footsteps of the excellent CO1U mic, the CO1U Pro is a fantastically warm-sounding USB condenser mic that's perfectly suited to recording rock, rap, pop and more.

6

> **SAMSON SR850**
$55
samsontech.com

Don't make your masterpiece with high-fashion headphones: they tend to color the sound by emphasizing particular frequencies, so they're completely useless for mixing. Samson's are accurate and comfortable.

7

> **GARAGEBAND**
FREE
apple.com

Many musical devices come with bundled music software, but so does every new Mac by default. GarageBand is surprisingly powerful for both live and programmed music and it's a joy to use.

Just getting into audio production? Try this selection

M U S I C

1

> **M-AUDIO M3-8 ACTIVE STUDIO MONITORS**
$500
m-audio.com

Don't spend big money on big monitors until you've tried these three-ways, which punch way above their price tag.

2

> **AKG C414 XLII**
$1,349
akg.com

AKG's world-famous 414s are great for everything from close-miked vocals to pianos, percussion and perfectionists, and the XLIIs are arguably the best versions yet.

3

> **MACBOOK PRO 15-INCH**
$1,999
apple.com

Every Retina Pro is powerful, but the 15-inch high-res screen is ideal for the dense interfaces of pro music software, as is the 16GB of RAM.

4

> **LOGIC PRO X**
$199
apple.com

With pitch and time correction, realistic "live" drumming and a redesigned interface, this is the best Logic yet. Pair with the Logic Remote app on iPad for more control.

5

> **UNIVERSAL AUDIO APOLLO TWIN**
$1,129
uaudio.com

The Twin has built-in UAD processing, a tremendous mic pre-amp, huge dynamic range and very low noise and distortion. It can cope with massive track counts too.

6

> **KORG TAKTILE 49**
$490
korg.com

Korg's excellent Taktile boasts DAW controls, a Kaoss-style X-Y pad that doubles as a trackpad, assignable sliders, encoders and buttons and tight integration with all the major music packages – all for a good price.

7

> **ACS T1**
$999
acscustom.com

Grown adults were weeping when we had to hand these back: the custom-molded, triple-driver, amazingly comfortable T1 headphones deliver sound so clear you can hear what the musicians are thinking.

Perfect audio equipment for music pros

Get started with high-end photography

PHOTOGRAPHY

1

> **NIKON D3300 WITH 18-55MM VR II LENS**
$499
nikon.com

This is a great SLR, especially for learning more about serious photography thanks to its Guide Mode, which helps you take control.

2

> **MEFOTO ROADTRIP A1350Q1T**
$185
mefoto.com

You need a tripod to get sharp shots when light levels fall and this one, which comes in 12 jazzy colors, combines low weight with excellent stability.

3

> **NISSIN i40**
$269
kenro.co.uk

This cute little flashgun has retro-style controls for ease of use, but packs plenty of power whenever you need to inject extra light into your shots.

4

> **LOWEPRO NOVA SPORT 7L AW**
$59
lowepro.com

There's enough space to hold your SLR, lens and flash along with a few small accessories and an iPad, plus the all-weather cover will keep everything snug.

5

> **PHOTOSHOP ELEMENTS 13**
$69.99
adobe.com

Organize and edit your images with this easy-to-use software. There are Quick and Guide modes if you need a little help, but you can also use Expert mode.

6

> **13-INCH RETINA MACBOOK PRO**
$1,299
apple.com

Thin, light and powerful enough for image editing, the Retina screen also means you can give your shots a proper inspection on the go.

1

> **NIKON D810**
$2,999
nikon.com

The last word in detail, this 36-million-pixel beauty has a sensor the same size a 35mm film frame, a fantastic focusing system and can shoot at 5 frames per second.

2

> **NIKON SPEEDLIGHT SB-910**
$547
nikon.com

This versatile and powerful flashgun can be used in the camera's hot shoe or remotely, triggered wirelessly by the D810 for advanced users.

3

> **iMAC WITH RETINA 5K DISPLAY**
$2,499
apple.com

See your images at their absolute best when you're editing them with the stunning 14-megapixel screen on this powerful computer.

4

> **CREATIVE CLOUD: PHOTOGRAPHY**
$9.99 PER MONTH
adobe.com

Adobe's Photoshop CC is the industry's go-to image-editing software and it can be yours along with Lightroom 5, for organizing images and more.

5

> **LOWEPRO PRO TREKKER 650 AW**
$430
lowepro.com

Serious kit needs serious protection and this backpack delivers, while giving enough space to carry your camera and an extensive range of lenses and accessories, including a MacBook and tripod.

6

> **NIKON AF-S NIKKOR 70-200MM F/2.8G ED VR II**
$2,400
nikon.com

If you want to shoot sport and action, or low-light music gigs, you'll need a telephoto lens like this beauty, for action-freezing speeds.

7

> **NIKON AF-S NIKKOR 24-70MM F/2.8G ED**
$1,900
nikon.com

This is an excellent general-purpose lens that's ideal for photographing landscapes, capturing professional portraits or shooting a wedding. The wide aperture enables pleasing blur.

8

> **GITZO GT3542L MOUNTAINEER SERIES 3 TRIPOD AND UNIQBALL UBH 45 BALLHEAD**
$995/$540
gitzo.com;uniqball.com

This tripod and head combo (sold separately) gives you strength, low weight and the ability to lock the horizon perfectly level as you pan or tilt.

High-end equipment for pro photographers

1

> **CANON 700D**
$615
usa.canon.com

Canon's 700D produces amazing video results for the price, allowing you to change lenses and get crisp shots with lovely depth of field thanks to its large sensor.

2

> **RØDE VIDEOMIC PRO**
$260
rodemic.com

Røde's microphone for DSLR users uses a clever floating cradle system to ensure there is no pollution of the terrific broadcast-quality sound.

3

> **LOWEL SLIMLIGHT RIFA PRO 2**
$732
lowel.tiffen.com

Perfect for interviews or small-scale productions where a three-point lighting set-up is all you'll need, the Pro 2 has everything you'd want.

4

> **MANFROTTO MVK502AM**
$450
manfrotto.us

You can't skimp on tripods – this model gives an excellent balance of value and stability. Consider a Glidetrack system for camera moves, too.

High-end film-making is easy with this high-quality setup

5

> **iMAC WITH RETINA 5K DISPLAY**
$2,499
apple.com

With a quad-core Intel processor and a 5K screen that offers huge space for your editing software, the iMac is packed with powerful features.

6

> **FINAL CUT PRO X**
$300
apple.com

Final Cut is brilliantly accessible for beginners while, thanks to its excellent modular setup, being versatile and easily powerful enough for video professionals.

VIDEO

1

> **BLACKMAGIC URSA**
$5,995
blackmagicdesign.com

Offering 4K with a breathtaking 12-stop dynamic range, the URSA doesn't just sound impressive – the raw footage it records is incredible.

2

> **ZEISS COMPACT PRIME CP.2 LENSES**
$23,741-$26,061
zeiss.com

With a reputation for premium quality, Zeiss' set of cine-specific prime lenses offers astounding quality and flexibility with the option of an EF mount.

3

> **RØDE NTG-8 MICROPHONE**
$999
rodemic.com

The perfect mic for film or broadcast, the Rode NTG-8 starts where the extremely popular NTG-3 left off, exhibiting market-leading precision.

4

> **KINO FLO CELEB 200 DMX LED**
$2,570
kinoflo.com

The latest from the leaders in controllable soft lighting, these patented light banks are easy to use, highly customisable and flicker-free for slomo.

5

> **SACHTLER SYSTEM 20 S1 SL HD MCF**
$12,985
sachtler.com

From the carbon-fibre construction to the state-of-the-art Speed Balance fluid head, this offers perfect stability and precision.

6

> **IDS UNIVERSAL DOLLY**
$1,195
indiedolly.com

A lightweight mobile dolly system with two wheels on top and two wheels on each side that provide beautiful Hollywood-like smooth camera tracking.

7

> **MAC PRO**
$3,999 (6-CORE)
apple.com

Packing Intel's highes-end CPUs with up to 12 cores of processing power, the Mac Pro is magnificent – and everything an editor could wish for. Add a couple of 4K displays.

8

> **ADOBE PREMIERE CC**
$19.99 PER MONTH
adobe.com

Premiere has established itself as the editing software of choice for pros due to its incredible power and connectivity with After Effects.

The pro setup that could make you a Sundance sensation

Art on a budget: it's easy to start a masterpiece

1

> **PENCIL BY FIFTYTHREE**

$60

fiftythree.com

A neat stylus in its own right, but when it's combined with FiftyThree's Paper app, this becomes an even more useful digital tool.

DIGITAL ART

2

> **13-INCH RETINA MACBOOK PRO**

$1,299

apple.com

Plenty of power, plus fast flash storage, 8GB of RAM and a crisp, clear screen make this a great portable screen to perfect your artistic works on.

3

> **SKETCHBOOK PRO 7**

$2.99 PER MONTH; $24.99 PER YEAR

sketchbook.com

The king of the inexpensive yet powerful art apps, Autodesk's Sketchbook Pro 7 is a joy to use.

4

> **ARTRAGE**

$49

artrage.com

As soon as you fire up Artrage you'll want to play, with its chunky menus and large tool and colour selection areas. It offers an excellent, realistic painting experience.

5

> **WACOM INTUOS MANGA TABLET**

$100

wacom.com

For a no-fuss entry-level art tablet, you can't go wrong with Wacom's Intuos Manga there are no bells or whistles here, just a high-quality tool.

6

> **BRUSHES 3**

FREE

brushesapp.com

This free app was designed for iPhone and iPad. Its clear navigation, autosave and unlimited undo and redo all add up to an easy and enjoyable art experience.

7

> **iPAD AIR**

$399

apple.com

Getting away from your desk to sketch in the outdoors is easy with a light tablet like the Air, with its 2048x1536 screen resolution and dual-core processor.

1

> **iMAC WITH 5K RETINA DISPLAY**
$2,299
apple.com

As a monitor for displaying your art, the Retina iMac 5K is unbeatable – the detail level in its 5160x3880 screen is intense, as is the power on offer.

2

> **ADONIT JOT TOUCH PIXELPOINT**
$99
adonit.net

Styluses for iOS are getting lighter and more symbiotic with the iPad and the great apps you can get – and the Pixelpoint is at the fore of the lot.

3

> **iPAD AIR 2**
$499
apple.com

This is Apple's best tablet, and it works perfectly with a range of great art apps. Portable and powerful, it allows pros to create quality work wherever they are.

4

> **PHOTOSHOP CC**
$19.99/MONTH ANNUAL PLAN
adobe.com

This is the most popular, most powerful, digital art software in existence. The Creative Cloud subscription offers regular updates.

5

> **WACOM INTUOS PRO MEDIUM TABLET**
$350
wacom.com

This is the pen tablet of choice for many digital artists. Pressure-sensitivity and tilt recognition make each stroke of the stylus count, altering the width and opacity of your marks. You can also use your fingers to zoom.

6

> **COREL PAINTER 2015**
$429
painterartist.com

Painter offers the best traditional-feel digital art tools around. If you want to create art with the look of traditional media, there's no better way.

7

> **PROCREATE**
$5.99
procreate.si

This is the best art app for the iPad, period. The go-to art software for many pro artists, its 64-bit colour, 120 brushes, and 4K ultra HD canvas mean you can start, and finish, your masterpieces on your iPad.

Go to the next level with more advanced Mac-based media

Podcasting
is easier
than ever
– try these
for starters

1

> **GARAGEBAND**
FREE
apple.com

It may come free with
your Mac, but this is
still a powerful tool
and recommended by
podcasters across the
industry, from
amateurs to pros with
thousands of listeners.

2

> **BLUE SNOWBALL**
$60
bluemic.com

This is a great starter
microphone, giving
you vastly better
recording quality than
your Mac's built-in
mic. Your listeners will
thank you for the
clearer, richer sound.

3

> **11-INCH
MACBOOK AIR**
$899
apple.com

You don't need a ton
of power to record
and edit these days
– an Air offers all you
need, and makes for
a highly portable
podcast workstation.

7

> **CALL RECORDER
FOR SKYPE OR
FACETIME**
$29.95
ecamm.com

This essential utility
enables you to record
both ends of your
conversation – yours
and your guest or
co-host – in a format
perfect for editing.

8

> **JABRA REVO
WIRELESS**
$155
jabra.com

Any headphones will
do at first, but when
you get serious, you'll
want to hear yourself
and your guests
clearly. These are
great, and flexible.

Go a bit further
to achieve that
pro sound

4

> **RØDE PODCASTER**
$230
rodemic.com

This dynamic USB mic
eliminates background
noise and gives you a
much crisper sound
without requiring
more expensive
overhead like an audio
interface or mixer.

5

> **RØDE PSA1**
$100
rodemic.com

A studio boom arm
such as this excellent
model gives you total
control over your mic
position, allowing you
to sit or even stand
and speak
comfortably.

6

> **RØDE PSM1**
$40
rodemic.com

A shock mount cuts
out external vibrations
together with the
noise they can add to
a recording.

Apple and Mac|Life Then and Now

As *Mac|Life* hits its 100th issue, we look back at how things have changed at Apple in that time

NEAR THE START of 2007, the first issue of *Mac|Life* was sent to the printers. It was a fresh start for the magazine previously known as *MacAddict* – but Apple was about to change, and *Mac|Life* followed. Apple's hardware had moved to Intel from its PowerPC origins, but outwardly the iMac, MacBook Pro, Mac Mini and Mac Pro all looked like their previous incarnations – that would change. The iPod was pretty much the most popular gadget on the planet, and its sharp design and friendliness would inform Apple's direction and ultimately make the iPod almost obsolete. The iPhone era was about to begin, making Apple more popular than ever, and heralding its most successful period. Since 2007, we've seen a dramatic shift in what tech we use most and how we use it. Here's a look at some of the things that have changed, and here's hoping we'll have more exciting new devices to talk about in another 100 issues.

100 issues of Apple highs and lows

Apple's had some huge successes since 2007, but some stumbles, too

JUNE 2007 - iPhone launches. It's limited, there's no 3G, it's crazy expensive at first, but it hits the dinosaurs of the phone market like a meteor.

JULY 2008 - MobileMe launches. It should be Apple's foray into a cloud-like future, but major problems eventually cause Steve Jobs to apologize publicly for it.

APRIL 2010 - The iPad launches. At first nobody (including Apple, it felt at the time) knows exactly what it's for. That later turns out to be the entire point, once developers start turning it into everything from a fancy synthesizer to a notebook to a sky map to an arcade cabinet.

AUGUST 2011 - Steve Jobs resigns as CEO, due to his deteriorating health, promoting Tim Cook to the role. Jobs died in October that year.

AUGUST 2014 - Very personal images of celebrities are stolen from iCloud, partly due to weak passwords from users, but also reportedly potentially due to some lax security from Apple.

JANUARY 2008 - MacBook Air launches, pulled from a Manilla envelope as One Last Thing. It runs on an iPod hard drive with Intel's weediest processor, but it's the shape of things to come.

JULY 2008 - Unibody MacBook Pros are introduced, bringing in a design philosophy that eventually rolled out across all of Apple's laptops, the iMac and even the iPhone.

JUNE 2010 - The iPhone 4 is the first Retina Apple device, starting a fresh revolution in how we see (quite literally) our devices. Now, we have print-quality images on almost every Apple product.

DECEMBER 2013 - The radical, redesigned Mac Pro goes on sale, proving Apple still has design mojo. Claims that it's just a G4 Cube that works are... hmmm. But look at it!

SEPTEMBER 2014 - Apple announces the Watch, pushing further into fashion and lifestyle areas. Whether its launch is as much of a high remains to be seen.

Changing interfaces

OS X and iOS have come a long way since Tiger and iPhone OS 1.0 in 2007

REMEMBER AQUA? In 2007, we were still swimming in it. Mac OS X 10.4 (Tiger) was a big deal for Apple – it marked real maturity for OS X as an operating system, moving past almost all the doubts about utility or stability. It was shiny, rounded and full of 3D effects – all elements that we would come to see in the iPhone OS, released later that year. Shadows, highlights and textures gave everything a physical feel – compounded by the way on-screen buttons visibly pressed in when clicked or tapped. This made extra sense on the iPhone when coupled with the idea that the phone "turned" into whatever device the app emulated – the iPhone had "almost buttons", but it could have an infinite variety of switches, knobs and sliders. On the Mac, these flourishes were perhaps there to look nice more than anything else. It's often said that the chunky, real-world aesthetic of both OS X and iOS at the time was to cover for the relatively low-res screens of the time – a textured background hid the blocky pixels better than a solid one would. Of course, at the time we considered the original iPhone's 320x480 screen to be gloriously high resolution…

In 2015, in both iOS and OS X, the basics of the interfaces have barely changed – on Mac, you still have the Dock, menu bar, windows with three buttons in the top left and so on; on iOS the Lock screen, Home screen and basic interface layout are all much pretty much the same – but the look is ultra-modern. There's in interesting parallel looking back at Tiger, though: Yosemite might have ditched the little design flourishes that made buttons or windows seem like real objects, but there's still a suggestion that the windows are made of a real material. In Tiger, the windows appeared to be made of brushed metal; in Yosemite, the windows are translucent glass, letting through a blurred impression of what's behind. Maybe things haven't changed as much as we might think.

Tech in 2007

What the non-Apple gadget world was like when *Mac|Life* arrived

THE HEADY DAYS of '07 feel awfully recent to us, but the tech world has changed a lot since then. The Nintendo Wii had just been released, and its rocketing sales were embarrassing the more powerful but (then) comically expensive PlayStation 3. The HD disc wars were raging too – it was another few years before HD-DVD conceded.

Windows Vista had just arrived on the scene, and people were hopeful about it. That didn't last. Can you imagine having windows that look like frosted glass in your desktop OS!? Wait, no, hang on. That bit was fine. Definitely fine.

Later in 2007, Eee PCs arrived, and netbooks took the world by storm over the next year or so. It possibly helped that they ran Linux or Windows XP, not Vista. Facebook and Twitter both launched in 2006, but 2007 is when people started noticing them. The latter now has 500 million users; the former boasts 1.3 billion. Some even like it.

The new company

Is this the same Apple as eight years ago?

WE TALK OF SOME companies like people, spinning behavior and quirks into personalities. Many business do behave in a distinctive way, but personality doesn't come from nowhere – it comes from those who steer these companies. In 2007, Apple's personality felt indistinguishable from Steve Jobs'. He was at his finest launching the iPhone – predicting the future and bashing the competition for its failure to innovate. Growing Mac sales and the dominance of the iPod and iTunes created confidence in Jobs, and that meant Apple itself became a company exuding certainty.

But consider the changes that have come to Apple since then. The most obvious change was Tim Cook becoming CEO. Many reports have described him building an Apple that's softer and more friendly. Tony Fadell, creator of the iPod, had already left, supposedly over clashes with Scott Forstall about iPhone software.

A company's personality comes from those who steer it

Forstall won – but he too left, reportedly under a cloud, due to his combative nature. Forstall's leaving elevated Jony Ive to a role that gave him control of hardware and software design at Apple.

In 2012, Ron Johnson, the architect of the Apple stores network, left the company, and former Burberry CEO Angela Ahrendts was eventually brought in to run Apple's retail operations – bringing with her a kind of experience that's new to the company.

With all these changes, does that change Apple's personality? Its events these days are still showy, but with Cook's softer speech and Craig Federighi's jokes, the tone is more like an inclusive conference. The move to yearly OS X updates is perhaps a sign of Cook's love of orderly progress. And with Watch's launch, we might see a lifestyle-focused side of Apple, guided by Ahrendts, that we would never have imagined under Jobs. Does all this mean it's a different Apple? Maybe – but maybe new markets need that.

TIM COOK
CEO

ANGELA AHRENDTS
Senior Vice President,
Retail and Online Stores

JONATHAN IVE
Senior Vice
President, Design

Greatest hits

2007 popular culture

N

OT TO GET ALL "Hey, remember the noughties?" (and not just because noughties is such a horrible word), but a lot of pop culture stuff happened in 2007. *The Sopranos* ended with its infamous cut to black, while *Stargate SG-1* bowed out as the longest consecutive running sci-fi TV show after 10 years. *The Big Bang Theory* started in '07, with few people predicting its popularity. *Damages* and *Gossip Girl* arrived too, along with *Mad Men*, which somehow made being a detached alcoholic cool.

Spider-Man 3 and the third *Pirates of the Caribbean* film gave us major threequel fatigue. *The Simpsons Movie* hit the big screen, getting back many of the writers from the series' heyday amid rumblings that the show was past its prime. Meanwhile, in 2015, the show is about to enter its 26th season...

Pretty much no one had heard of Lady Gaga yet, but Miley Cyrus was one of the biggest stars on the planet. Britney shaved her head.

And the Harry Potter saga ends with the release of *Deathly Hallows*, having transformed from kiddy adventures to gritty teen drama. Where would young adults get their misery fill? Don't worry - at this point, *The Hunger Games* is only a year away...

APP LIFE

THIS MONTH'S MOST INTERESTING iPHONE & iPAD APPS

Lara Croft and the Guardian of Light

A new perspective on Lara's "archaeology"

$4.99 **Developer** Crystal Dynamics, laracroftandtheguardianoflight.com

Platform Universal **Requirements** iOS 7 or later

Although you can play solo, like most things it's more fun with a pal.

This is a departure from the kind of lengthy, third-person, over-the-shoulder adventures in which Lara usually stars – and its top-down, fixed isometric perspective and shorter length both fit iOS nicely.

There's still plenty of action, exploration and wholesale creature culling, but instead of using the right-hand analog control to pivot the camera, here it's used to aim your weapon 360 degrees on a horizontal plane, which feels intuitive. On iOS, those buttons and analog controls are still necessarily

There's no getting away from those awkward controls.

virtual, though, which creates the same problems as always. You can adjust their position (though not their size), and they're fine for walking around and shooting, but anything that requires dexterity becomes more difficult than it should be.

Timed sections that involve jumping are a pain, for instance, because you have to find the jump button without being able to just feel for it. Switching between shooting and dodging can make combat more stressful, as you'll probably need to look at your hands to do so. And it shouldn't feel like so much effort to move your finger to the middle of the screen to get Lara to pull a handle, but it does.

The regular puzzles are a welcome pause. These sections, which usually require some combination of switches and levers and timing, are never frustrating, but just taxing enough to make you feel as if you're using your brain. They're particularly satisfying in co-op play, where one person plays Lara and the other an ancient

warrior called Totec. Each has different abilities – for instance, Totec can throw a spear that Lara can then jump on – and so players must communicate. This is fine in local co-op, though the mode is susceptible to glitches and crashing, but is harder when playing online.

Lara Croft and the Guardian of Light looks decent and is still a good game, but the controls and the potential issues with co-op mean that it's not as polished as the console version.

THE BOTTOM LINE. The combat and puzzles in Guardian of Light are fun, but the controls harm the experience.
JORDAN ERICA WEBBER

LARA CROFT AND THE GUARDIAN OF LIGHT

- ➕ Fixed isometric perspective
- ➕ Fun combat and puzzles
- ➖ Fiddly controls
- ➖ Temperamental co-op

OKAY ■■■□□

Shorten URL	Get Lyrics	Speed Dial	Untitled Workflow
Order Pizza	Home ETA	AirDrop Screenshot	Upload Last Photo
Speak Text	Wayback Machine	File Downloader	Image Roulette
Clear Clipboard	Photos to GIF	Find	Uber Home
Share Location	Edit Photo	Image of the Day	Share Availability
Running Late	Where Next?	Music Timer	Scan QR Code
Tip Calculator	View Source	+ Create Workflow	

Whatever you dream, you can do! Workflow allows users to assemble an infinite number of possibilities.

Workflow
A simple but effective iOS scripting tool

$4.99 Developer DeskConnect, my.workflow.is

Platform Universal **Requirements** iOS 8 or later

iOS 8 opened a lot of doors previously closed to developers, including the use of extensions to enable functionality which device owners could only dream of a year ago. Thanks to a new app called Workflow, even casual users can now get in on the fun, creating simple, one-tap scripts to make iOS perform new tricks.

Workflow is essentially the iOS equivalent of Automator, the OS X application Apple introduced in 2005 to make short work of repetitive tasks without a stitch of coding experience. Like Automator, Workflow can be used to make apps work together to automate tasks such as creating PDF files, all the way up to faux-apps capable of being launched from the Home screen – such as the Tip Calculator included as a sample workflow.

Being able to bend iOS to your will is quite liberating after years of Apple's draconian restrictions over the OS. With more than 150 available actions, Workflow promises "infinite possibilities," and there are a lot of cool things you can do. The app includes a gallery of workflows created by others, and users are encouraged to add their own. These range from relatively basic tasks

(create a Home screen icon to call a loved one in one tap) to the more practical (automate getting directions to a favorite location) and downright convenient (send a text message with your most recent screenshot).

Compared to competing automation apps such as Launch Center Pro, Workflow is user-friendly, but lacks detailed advice for more comprehensive tasks. At first launch, the app walks users through the process of creating an animated GIF using the device camera.

There are only a couple of things worth quibbling about. For those with multiple iOS devices, the lack of iCloud or other cloud sync means having to recreate workflows two or more times. The app also conspicuously avoids any potential for Notification Center widgets, presumably because Apple continues to limit what developers are capable of doing.

THE BOTTOM LINE. Workflow delivers powerful iOS automation that's so good, Cupertino should make it part of the operating system. **J.R. BOOKWALTER**

WORKFLOW

- Fast, drag-and-drop automation for iOS
- More than 150 actions for control of other apps
- iOS 8 extension support
- Workflows aren't synced between multiple devices
- Lacks Notification Center widget support
- Limited documentation

EXCELLENT ▪▪▪▪
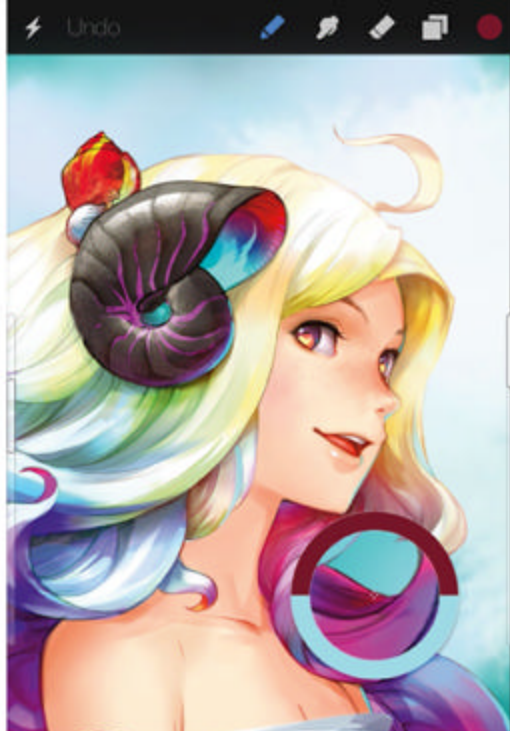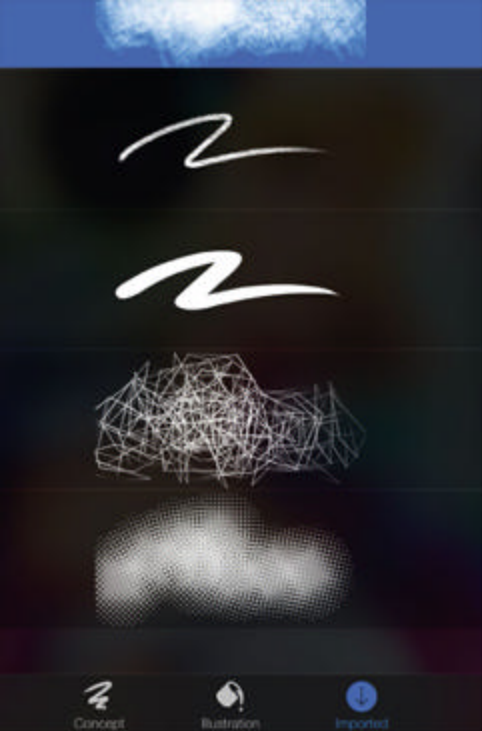
Procreate Pocket

The best painting app comes to the iPhone

$2.99 **Developer** Savage Interactive, procreate.si

Platform iPhone, iPod touch **Requirements** iPhone, iOS 8.1 or later

Thanks to an emphasis on usability instead of complex functionality, Procreate Pocket is incredibly easy and fun to use. With the screen uncluttered by tools you can focus on the simple pleasure of drawing and painting. The interface remains largely the same as the iPad app, with brush, eraser and smudge tools along the top, and if you are using an iPhone 5 or later, the Layers tool as well (on an iPhone 4S or iPod touch 5th gen,

it's in the menu). Sliders on the side of the screen enable you to alter brush size and opacity with ease, and although brush size is shown as a percentage of the screen rather than pixel size, you soon get used to it.

Other functions are tucked into the "Lightning Bolt" menu in the top left corner, and although some options are no longer on offer, Procreate iPad users won't feel short-changed – except maybe when it comes to brushes. There are 12 defaults, divided loosely into art brushes and texture brushes. You don't get the same editing options to create your own custom brushes or fine-tune the defaults as you do in the iPad version of the app, but 12 is about the going rate for an iPhone app, as per Procreate Pocket's rivals, Brushes and Sketchbook. However, there's a secret weapon: users of the

Procreate iPad app can export their brushes and then import them into Pocket via iCloud or Dropbox, expanding the range. For new users, however, the variety and customization of brushes is unavailable. The same is also true for canvases: bespoke canvas sizes can be imported but not created.

A lack of complexity has always been one of Procreate's strong points, but with Pocket things may have gone too far. When used on its own, it's still as fun as its big brother for creating great art with, but it feels limited. When used in tandem with the main app, the extra options begins to make up for this, as you can start a sketch in Pocket and finish by exporting layered native files between devices. On its own, it just lacks that extra something to make it a true masterpiece.

THE BOTTOM LINE. Sketching in Procreate is still a simple delight, but it lacks the brush options of its iPad sibling.
ALEX THOMAS

PROCREATE POCKET

- Simple uncluttered interface
- Import brushes via Dropbox and iCloud
- Export layered files to use in iPad app
- Lacks brush editing options

GREAT ■■■■□

PDF Office

Create and edit documents on the move

FREE (subscription required) **Developer** Readdle, readdle.com

Platform iPad **Requirements** iOS 7 or later

The term "desktop class" aptly describes the latest mobile solution from the creators of Documents and PDF Expert, which delivers the power of Adobe Acrobat document creation on the iPad.

Although PDF Expert has always been a capable document reader with annotation tools bolted on, PDF Office adds the ability to actually create such files from the device camera, web pages, or by converting existing files. The app also features robust form-creation tools, including the seriously cool ability to detect form fields automatically from captured documents. But progress comes at the expense of

earlier functionality. Documents can be imported from the likes of Dropbox or OneDrive, but PDF Office ditches the ability to sync with these services. Other file manager niceties such as color tags and favorites are equally MIA.

There are a couple of pricing "gotchas": free users can import and edit documents, but are required to subscribe before they can save or share. There's also no trial period, so everyone has to pay to test drive the full experience.

PDF Office may not sound that different from existing solutions from Readdle and other developers, and it could be argued the adoption of subscription-based pricing
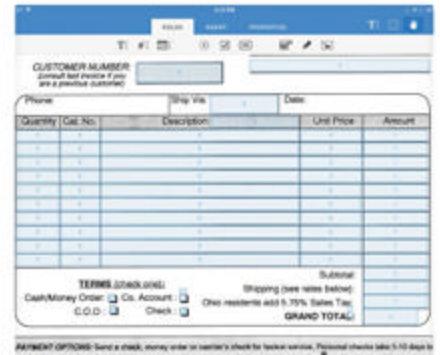
Creating PDF forms no longer has to be a headache, thanks to PDF Office.

($4.99 per month or $29.99 annually) is actually a step in the wrong direction. But for road warriors who need complete control over PDF documents, this app will be your new best friend.

THE BOTTOM LINE. PDF Office is a powerful all-in-one solution for creating PDF documents. **J.R. BOOKWALTER**

GREAT ■■■■□

Colors - 1000 Filters

One. Thousand. Filters. Okay, we're going in...

99¢ **Developer** Wanman Inc, colorscamera.com

Platform Universal **Requirements** iOS 7 or later

We'll level with you: we have not tried all 1,000 filters available in this app. We test things rigorously here, but there are only so many hours in the... year.

The sheer number of photo filters available in Colors is its selling point, but it's not the most impressive part: it applies them in real time when you're lining up to take your photo, and you can just flick through from filter to filter with a swipe, or tap a button that brings up six filters simultaneously across the viewfinder, with the entire range of filters there to scroll through, all moving across the image live. It's totally slick on the iPhone 6, with almost

no obvious slowdown, and it looks really cool. Crucially, many of the filters are great, ranging from subtle hue adjustments to different mono styles to dramatic colorizing and split-tone effects. You can favorite up to 50 of the ones you like the most, to keep them handy for future use (or you'd never find them again – seriously).

You can also import pictures from the Photos app to edit, and there are options such as brightness and saturation in this editing screen, which can make the filters even more dramatic. There's no extension for using the filters in iOS's Photos app, sadly. As a camera, Colors is competent enough, and has various framing options
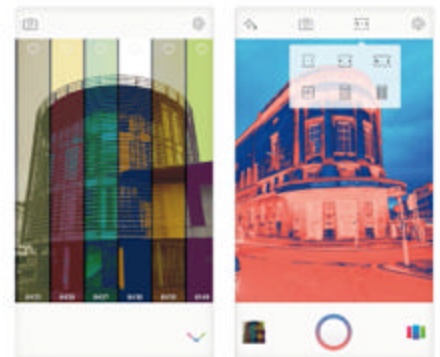
All the filters work in real time, and scrolling six filters across the screen at once is really cool.

when taking your shots, but no fine-grained controls for things like exposure – though that's not the end of the world.

THE BOTTOM LINE. 1,000 filters is pretty overwhelming, but Colors does a great job of making it manageable and even fun to dive right in. A bargain, even it's not a sophisticated camera. **MATT BOLTON**

GREAT ■■■■□

Witcher Adventure Game

Low fantasy, high maintenance

$5.99 **Developer** CD Projekt, thewitcher.com/adventure

Platform iPad **Requirements** iOS 4.3 or later, iPad 2/iPad mini or later

Taking on the mantle of a fantasy hero is never going to present the easiest of careers, and a life on the road tends to be a lo-fi, no-frills experience. It's all even tougher in the world of Andrejz Sapkowski's *Witcher* novels, where making a difference is hard, life is cheap, and ethics are an afterthought.

If The Witcher Adventure Game captures any of that, it's how much of a challenge it can be to achieve anything positive at all. It's a slick, even lavish adaptation of the recently released board game but it's still a redressed version of something that's a bit of a slog.

Taking the role of the titular Witcher, Geralt, or one of his companions, players must complete quests by traveling to specific locations while collecting leads along the way. Leads, which come in three different flavors, are essentially currencies that purchase success at different exchange rates for different characters. Turn up where you need to be, with the right amount of currency, and you cash it in to complete your quest and score yourself points.

Monsters quickly begin to populate the land and must be defeated or avoided on almost every turn, while a host of events, most of them random, are drawn from a foreboding deck of Foul Fate cards. These present distractions, delays and debuffs: injuring you, or cursing you to draw even more monsters.

There's certainly no shortage of cards and random events to endure, as the game flips through them like the cruelest of croupiers. While you can also develop your character's skills and happen upon allies and rare strokes of good fortune, most of the time you'll feel on the back foot. It's exhausting. There are also few opportunities for co-operation or directly affecting other players. You're playing together, but rarely interacting.

The presenation and lilting music make the game a charmer, but it's ultimately an endurance test. Don't imagine Gandalf charging forward on Shadowfax. Imagine Geralt fighting through the mud and the rain, not towards success, but relief.

THE BOTTOM LINE. A well-crafted adaptation of a not particularly good board game where (bad) luck is too much of a factor. **PAUL DEAN**

THE WITCHER ADVENTURE

- Excellent graphics, music and interface
- Plenty to see and to fight
- Faithfully reproduces a somewhat exhausting experience
- Not enough player interaction

SOLID 🟩🟩🟩⬜⬜

Mayday! Deep Space

In space, no-one can hear you scream... at your iPhone

$2.99 Developer Daniel Wilson/Iron Cloud Entertainment, maydayapps.com

Platform Universal **Requirements** iOS 6.1 or later

"Run! Go left! Stop! Walk randomly in any direction you like! Ignore me entirely!"

There are more ways to play a video game than you might think, so good on developer Iron Cloud for defying convention and refusing to simply accept the standard inputs that we've grown used to. Instead, it has decided that you're going to control Mayday a very different way: with only your voice.

It's intriguing, but imperfect. Guiding the survivor of a mysterious spaceship disaster via only voice commands can be something of an unpredictable affair. Your charge, who navigates through a bare-bones map and embellishes his journey by talking back to you, can occasionally mishear even the clearest of instructions. Sometimes he has to be prompted to turn corners or follow routes that other times he'll navigate automatically. In these cases, your instructions can undo his progress.

He also struggles with the simple but vital prompt to "Turn around" when danger looms. Repetition doesn't always help and this can lead to some strange human/iPhone arguments, which are probably best conducted in private.

Most disappointingly, Mayday is over far too soon, partly because it's not hugely challenging and partly because the ever-thickening plot concludes just as it begins to get truly interesting. It's a fine concept, particularly when realized on the walkie-talkie sized iPhone, but it could certainly have been better executed.

THE BOTTOM LINE. While Mayday may seem like a great idea for a game, and could probably be developed a lot further, the result is something too brief, too easy and too fiddly. **PAUL DEAN**

POOR ▪▪▫▫▫▫

Drop Wizard

$1.99 Developer Gionathan Pesaresi, neutronized.com

Platform Universal **Requirements** iOS 4.3 or later

Drop Wizard looks like it has waved a magic wand and beamed onto your device from a 1980s arcade. It's a single-screen platformer, where you progress by beating up cute critters roaming about, who then transform into fruit bonuses to grab. Rinse and repeat as necessary.

It's visually charming, like its ancestors, but Drop Wizard is no throwback. Levels are in bite-sized blocks, culminating in boss fights – well-suited for mobile play. The controls, too, are perfect: you auto-run left or right, and fire a foe-stunning wand blast only on landing. This transforms Drop Wizard into a combination of frenetic arcade fare and constantly evolving puzzler, where you must continually figure out the best route to success – especially once you learn how to chain tumbling enemies, and the three-star system. (Clue: they're found, not won!)

THE BOTTOM LINE. A superb retro-infused platform game with a modern bent, besting its contemporaries and rivaling the finest games that inspired it. **CRAIG GRANNELL**

EXCELLENT ▪▪▪▪▪

Gunbrick

$2.99 Developer Nitrome, gunbrick.com

Platform Universal **Requirements** iOS 4.3 or later

In a dystopian future seemingly populated by highly intelligent cuboid birds, the car is obsolete. In this radiation-tinged world of mutants and mad scientists, the Gunbrick reigns supreme. The device is a gun on one side and a shield on the other, and trundles about by "rolling" in a manner a cube probably shouldn't.

As for Gunbrick the game, you work your way through over 30 levels, swiping to roll and tapping to blast. At first, the game's speed makes it feel like a breezy platform title, but it settles down to become more of a puzzler, with you having to figure out precision sequences of moves to get your cuboid vehicle through hostile terrain.
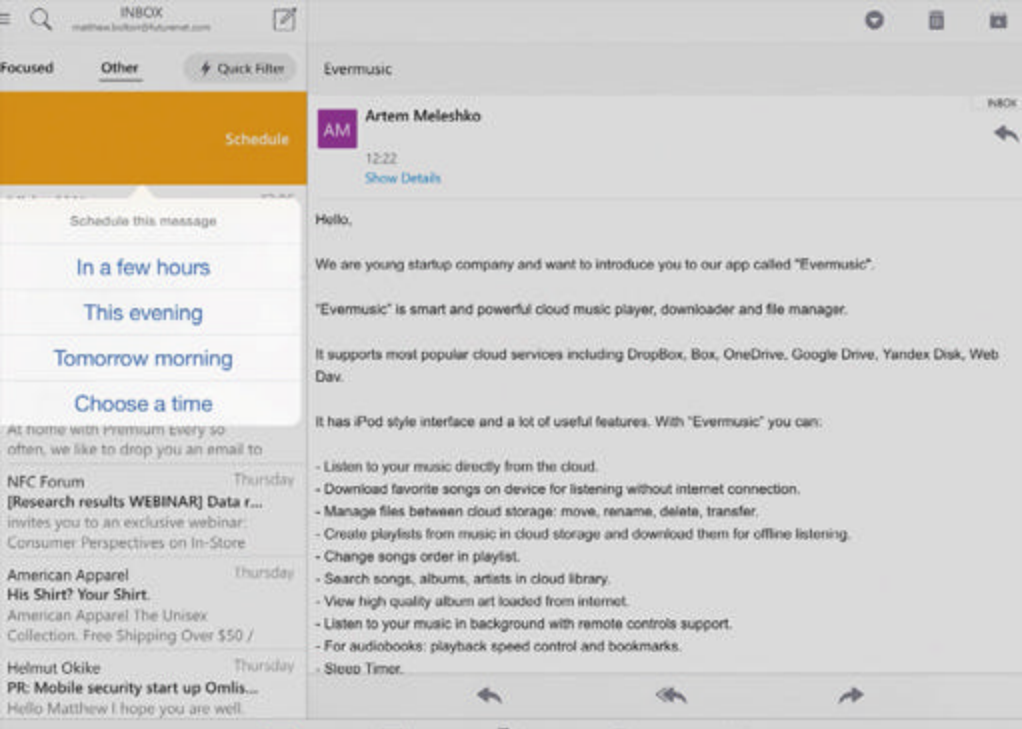
A few later puzzles are a bit too demanding, requiring lots of retries, but otherwise this is a knowingly madcap, engaging little game.

THE BOTTOM LINE. Here's a platform/puzzle mash-up that really works, not least when you're mashing up anyone unfortunate enough to get in your way. **CRAIG GRANNELL**

GREAT ▪▪▪▪▫

Microsoft Outlook is a truly useful mail client, with a clear interface and great extra options.

Microsoft Outlook

Is Microsoft back on the productivity throne?

Free **Developer** Microsoft, microsoft.com

Platform Universal **Requirements** iOS 8 or later

We can't keep up. We're from a time when the last thing you wanted on your lovely Apple computer was Microsoft's bloated, slow productivity applications, even though you couldn't really get by without them in most office environments. But while MS may have slightly missed the tablet and phone revolution, it's now roaring back with a vengeance. It started with OneNote, then Office on iOS became free, very useful and pretty user-friendly. And now here's Outlook, offering an incredibly smart, lightweight email experience that works with Gmail, iCloud and loads more services. What the hell?

In terms of looks, it's all fairly familiar: scrolling pane of messages on the left, message content on the right. But there's a "Focused" inbox here, which strips away things like marketing emails, leaving you with only the important ones at first glance (a bit like Gmail's web interface). Swiping left to right on an email brings up the option to basically "snooze" it, scheduling it to go away and come back when you've got more time, a bit like the app Mailbox offers. It's true that Outlook's features maybe aren't all the most original, but they put importance and immediacy at the forefront of how you interact with your mail, which is how a mobile client should be.

The even more useful stuff comes from the extras. In classic Outlook style, there's a calendar too, with appointments pulled from your mail service, but it also connects to several cloud storage services, including Dropbox and MS's OneDrive. It then makes all of this available to you when composing emails: extra buttons let you send an appointment request, state your availability, or attach any document in your cloud storage services. It's so simple, and so very useful.

Our only complaint is that parts of the app don't use the space of the iPad very well – the (also useful) recent contacts lists and some calendar views are very sparse, like stretched out phone screens. What is this, Android?

THE BOTTOM LINE. Our new go-to email app. A pretty complete package of exceedingly useful features, with the right focus for on-the-go email management. Beats the iOS Mail app hands down. **MATT BOLTON**

MICROSOFT OUTLOOK

- Nice, low-touch email management
- Excellent extra features
- Scheduling and attachment options
- Could use the iPad's screen better

EXCELLENT ■■■■□
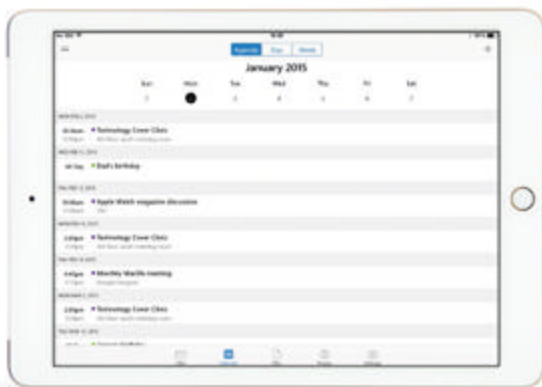
The 6 best apps for tax season

Let your iPhone be your accountant and maximize your refund

BY MICHAEL SIMON

It's that that time of year again. The flowers are blooming. The birds are chirping. And the IRS is making you sweat. But tax season doesn't have to leave you banging your head against the wall in frustration; no matter if you're digging through receipts or counting your gambling losses, filing your 1040 doesn't have to be an exercise in futility.

Before you can even think about starting your return, you're going to need to get a handle on all of your income and expenses. And there's no app better to track your money than **MINT** (Free, Universal). Just sync your accounts and it'll show you every purchase and deposit as it comes in, giving you an excellent birds-eye view of your finances.

Even if you're not using Turbo Tax to efile your return, Intuit's **TAXCASTER** (Free, Universal) can help you get the ball rolling. With a series of quick questions about your status, income and deductions, the app will provide a rough estimate of

When it comes to the ins and outs of your accounts, Mint has it covered – and synced!

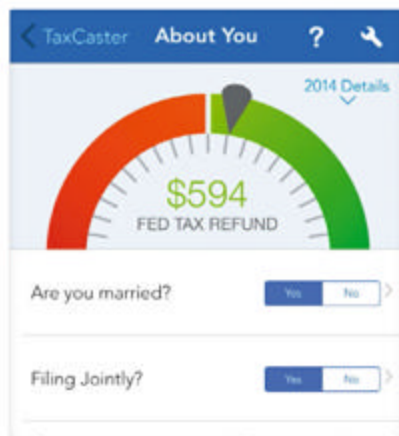your refund (or lack thereof), so you'll know if there's cause for concern or celebration.

Whether you're an electronic day trader or a penny stock investor, the government is going to want its fair share of your gains. Keeping track of all the trades you've made throughout the year can be tedious work, but **SIGFIG INVESTING** (Free, iPhone) has you covered. It syncs with your investment accounts to generate a complete picture of your portfolio, making it easy to see what you've made and lost in the market, as well as the performance of any mutual funds, IRAs and 401(k)s you may have.

No one enjoys sifting through a year's worth of little slips of paper, but if you're itemizing your deductions, receipts are a big part of your tax return. **SHOEBOXED** (Free, Universal) simplifies the

whole process, turning your receipts into an organized, searchable database that can help you catch every potential penny that could come back to you.

Speaking of write-offs, gas mileage is one of the big ones that's easy to overlook. This year, the government is willing to pay you up to 56 cents a mile for business, medical and even moving expenses, and there's no better way to track every trip than **MILEIQ** (Free, iPhone). As smart as it is simple, the app won't let you miss a single trip, toll or meter, automatically logging every drive you take as it maximizes your refund.

And once all of your papers are in order, **TAXACT EXPRESS** (Free, iPhone) has you covered. A one-stop tax resource, the app guides you through the process with every single form you'll need to quickly and accurately file your return – and most importantly, keep Uncle Sam happy.

Looking for a rough idea of your financial forecast? TaxCaster will give you a projection.
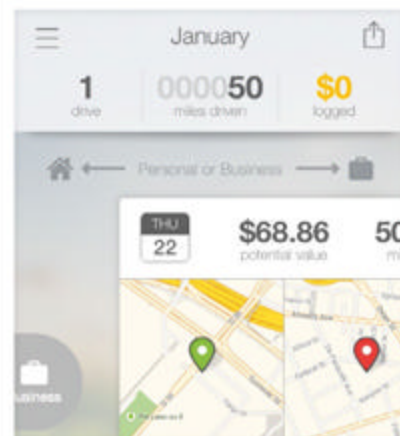
It's important to claim every cent you can, so let MileIQ tot up your gas expenditure as you go.

REVIEWS

TOUGH TESTING, TRUSTED RATINGS

Bluesound Pulse

A smart speaker with great sound – and a few issues

$700 **Manufacturer** Bluesound, bluesound.com

Output 80W **Dimensions** 16.5x7.5x7.8in **Weight** 13.4lbs

This wireless speaker doesn't offer any support for AirPlay, and there's no Bluetooth option, but it has some clever options of its own to bring to the table (or desk, or shelf, or wherever you keep your speakers). It connects to your home network over Wi-Fi, you can then use Bluesound's own app to stream music on it, from a number of different services: Spotify, TuneIn Radio, Rdio, Rhapsody, and many more. Note that we didn't say stream music *to* it – the smart thing about the Pulse is that it takes over the streaming for you, meaning that your iPhone or iPad's battery isn't getting hammered by constant streaming, and that you can use your phone without interrupting the music.

In practice, there are a few issues. Many services can only be accessed through the Bluesound app, which could be described as looking "a bit iOS 6-y". Worse, it's a fairly complex layout, and navigation changes depending on which service you use – TuneIn Radio was easy enough, but the way it works with the TIDAL lossless music streaming service was extremely confusing, forcing you into adding music to playlists, even if you just want to play an album (and it doesn't appear to pull in your saved favorites from the TIDAL service). Spotify is a better option, because the Pulse supports Spotify Connect, meaning that you just use the regular Spotify app and use the AirPlay-like Connect button to choose the Pulse as your output source. (Although it did just mysteriously stop playing music after a while for us at one point.) The last real issue is that you can't stream your own music from your iOS device, or send audio to it from any old iOS app.

For $700, you expect a speaker to at least sound fantastic, and the Pulse does. It's warm, with rich, smooth bass yet plenty of detail in the mid and high range. We really liked the balance of its soundscape, too – nothing felt like too much, nothing felt lost. It's even impressive at very low volume, so would work well in a bedroom.

THE BOTTOM LINE. As a one-box speaker solution, this has some undeniably useful elements, but is just much more of a pain to use than an AirPlay or Bluetooth speaker. Bluesound's multi-room setups are very well received, and offer more music playback options, and the Pulse would be best slotted into one of those. On its own, it sounds excellent, and we do recommend it if you can deal with its limitations, but we went back to our Zeppelin Air. **MATT BOLTON**
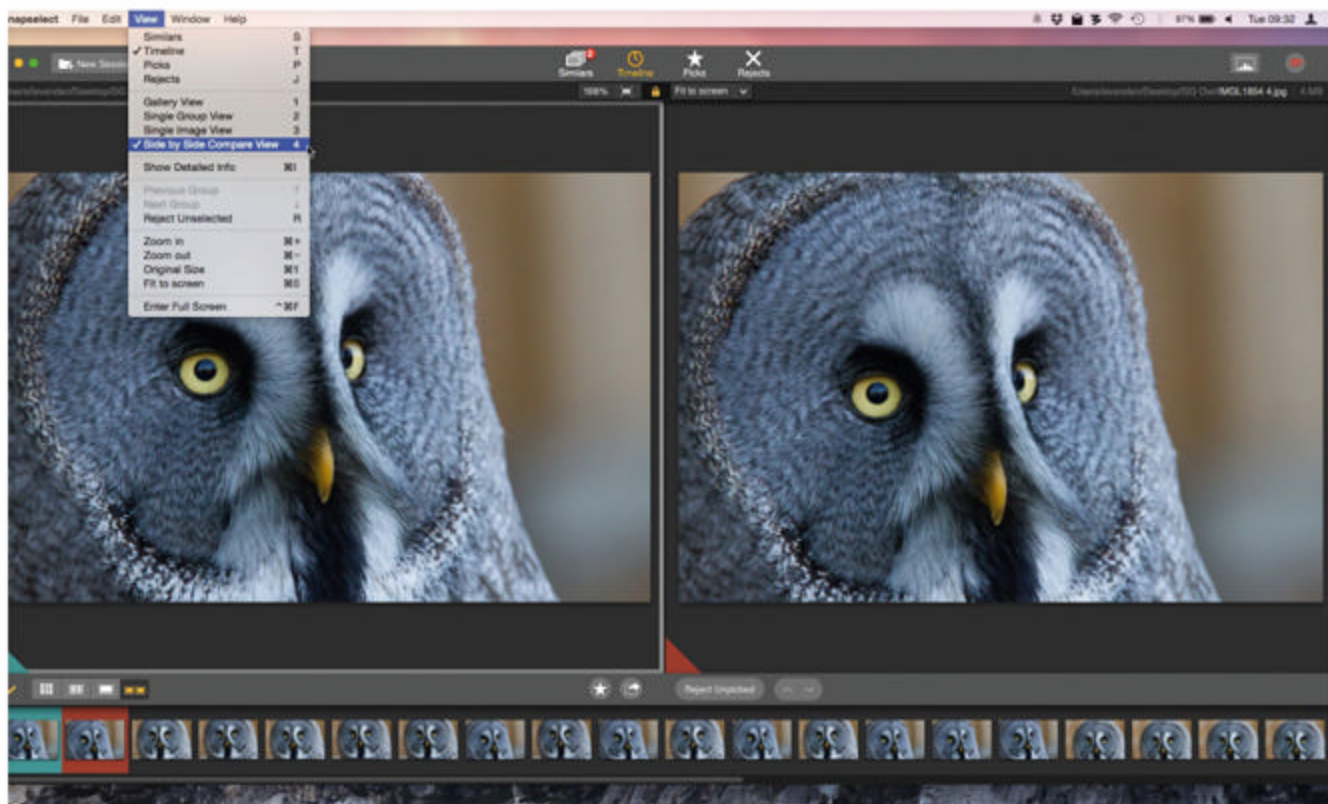
BLUESOUND PULSE

- Excellent, rich sound
- Handles the streaming
- Can't play stored music
- Confusing app

SOLID ■■■□□

The Bluesound Pulse has a high-quality build, and doesn't take up too much space for its audio power.

The app scans your images and decides which ones are similar, so you can check them and delete if needed.

Snapselect

Take loads of photos, only import the good ones

$15 **Developer** Macphun, macphun.com

Requirements OS X 10.9 or later, 64-bit processor

Large amounts of storage for your photos may be cheap, but modern DSLRs can blaze away at speeds in excess of 10FPS, and this can lead to a great many similar, if not identical, images being taken. Snapselect offers image recognition that can run while importing pictures from your camera as well as on existing Aperture or Lightroom libraries or folders on a hard drive. It works on both JPEG and raw files.

The app will group your images by capture time into similar and identical piles, and can take some time to do this depending on your CPU and the number of images it's having to process. We didn't see it make a mistake in its sorting, but after this process it's up to you to check through them and export the best to a working folder or reveal them in the Finder. The others can be deleted or archived.

While browsing your images, you can directly compare two side by side and pick which is the best, then export it for editing. The app will display camera settings and a histogram while you're sorting, so that all required information is to hand, and you can share directly to social media too, if you don't want to edit.

Many photographers will delete poor images on the back of the camera immediately after taking them or on importing to their Mac (in Lightroom's grid mode, say), so our biggest issue with this app is it feels like a solution in search of a problem, to a large degree. There's great technology at work, but not sure how many people will get all that much out of it.

THE BOTTOM LINE. Excellent image recognition and potentially very useful, but maybe not an essential buy. **IAN EVENDEN**

SNAPSELECT

- Image recognition works
- Works with app libraries
- Discard poor images on import
- Not all that necessary

GOOD ■■■□

FilePane

File management with extra features

$4.99 **Developer** Sergii Iamkovyi, mymixapps.com/filepane

Requirements OS X 10.9 or later, 64-bit processor

FilePane consolidates an assortment of file management features into a lightweight pop-up menu. FilePane lives in the menu bar, popping up a small "Drop Here" panel whenever the user begins to drag a file or text snippet. Drop it "there", and a compact panel of icons appears, each representing popular actions such as sending an email, setting an image as desktop wallpaper, creating a ZIP archive, or cropping/rotating images on the fly, with or without proportional resizing.

FilePane also comes in handy for displaying word and glyph count for word processing applications without such native functionality, like TextEdit. The window options adapt to the host software, although some applications aren't supported (most notably, Microsoft Word).

FilePane's icons take getting used to – it's not always clear what each does, which could be remedied with tooltips when the cursor hovers over each option. We also had occasional issues with desktop icons vanishing from the screen while being rearranged without invoking FilePane, even though files could still be viewed in a Finder window.

THE BOTTOM LINE. Frequently used file management tools in a convenient popup that's easy to use. **J.R. BOOKWALTER**

FILEPANE

- ⊞ Fast, efficient file management utility
- ⊞ Unobtrusive UI adapts to the content being dropped into it
- ⊟ Icons lack tooltips for easy identification
- ⊟ Occasional issues with vanishing desktop icons

GREAT ■■■■□

Yoink

File transfers made simple

$4.99 **Developer** Eternal Storms, eternalstorms.at

**Requirements** OS X 10.7.3 or later, 64-bit processor

Transferring files from one place to another on your Mac can be fiddly. Yoink simplifies the process by providing a halfway house: a tray that slides out from the left side of the screen for you to dump files, folders and selected app content (such as Evernote notes) into. You then navigate to your destination – another folder, app or even Space – and then drag your item from the tray into it. The simplified file transfer process is impressive enough, but Yoink goes further. You can store multiple entries in the tray at once and lock individual items so they remain in the tray for future use. One gripe is the built-in file preview, which currently doesn't work with certain types (iWork and Office among others) in Yosemite, but this is the only blemish on a program that otherwise delivers in spades. Spend five minutes with Yoink and you'll wonder how you ever did without it.

THE BOTTOM LINE. Yoink provides an effective way of transferring content between multiple locations. **NICK PEERS**

YOINK 3.0.2

- ⊞ Easy file movement
- ⊞ Options to modify behavior
- ⊞ Can drag text clippings or images from websites
- ⊟ Not all file types compatible with preview

GREAT ■■■■□
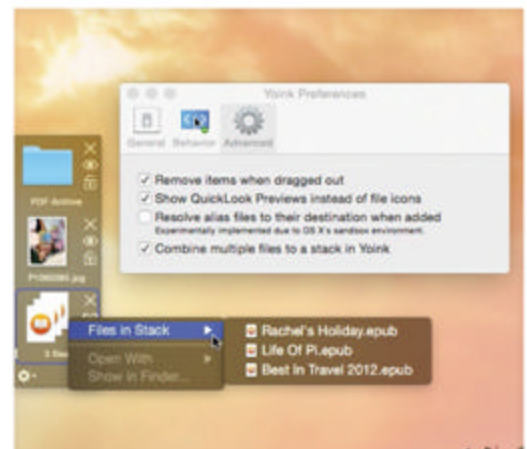
iScrapbook 5

Socially aware scrapbooking

$49.99 (single user), $89.99 (family pack) **Developer** Chronos, chronosnet.com

Requirements OS X 10.10 or later, 400MB of available disk space (2.7GB for included artwork and templates), optional inkjet or laser printer

iScrapbook 5 offers robust tools for creating scrapbook pages and albums on the Mac.

While many folk are content to carry digital images on mobile devices and share them via social networks, there is still a contingent of Mac users who fancy the notion of preserving memories in hard-copy form. Chronos finds a way to appeal to both camps.

iScrapbook 5 assists users in creating digital scrapbook albums in single- or dual-page spreads. Individual pages or entire albums can be printed or exported to PDF, TIFF, JPEG, or PNG files. With more than 15 new feature categories including texture, glass, and simulated old film overlays, this version creates pages that look more authentic. Imported photos shine thanks to one-click auto enhancement, while 3D headlines help modernize albums, with control over lighting, bevel, and reflections.

The easy-to-use layout tools haven't changed much, with the exception of a revamped Browser and Layer views at right. The former contains tabs for Shapes, Artwork, Photos, Text, and Favorites, which contain elements that can be dragged onto the canvas, including self-contained "iScrapKits" available

for purchase online. The app includes a few to get started, along with downloadable freebies to cut down on app size.

Seizing on the photo filter trend popularized by Instagram, iScrapbook 5 includes dozens of effects, including vintage, vibrance, and line art. Others like sunburst, sparkle, and 13 different water stains can be dragged onto elements to create a more realistic appearance; applying effects was snappy on our mid-2012 MacBook Pro with Retina display. Texture overlays add heightened realism, which can be created in standard 12x12in scrapbook, letter, A4, or just about any custom size.

All of this visual wizardry does come with one big downside: iScrapbook 5 requires OS X Yosemite 10.10 or later, leaving Mac owners with older hardware stranded on a less glitzy previous version. In a sign of the times, Chronos has adopted OS X extension support for sharing pages via Mail, Messages, or social networks, although trackpad gestures still get no love — zooming in or out of pages requires the on-screen slider.

THE BOTTOM LINE. iScrapbook 5 retains its self-proclaimed status as the top scrapbooking application by a wide margin, but leaves owners of older Macs in the dust in favor of glitzy effects, textures, and 3D headlines. **J.R. BOOKWALTER**

iScrapbook 5 includes a rich set of typography tools, including all-new 3D headlines to make pages stand out.

iSCRAPBOOK 5

- Inexpensive software with rich set of tools
- Texture overlays and photo effects
- Smart Inspector keeps user interface clutter-free
- Requires OS X Yosemite
- Can't drag-and-drop objects between layers
- No gesture support

GREAT ■■■■□

Prepare for spills when filling the ink tanks.

Epson EcoTank L355

Banish cartridges! But is the EcoTank worth the extra cash?

$300 **Manufacturer** Epson, epson.com

Printing res 5760x1440 DPI **Pages per minute** 9 (monochrome), 4.5 (color) **Connection** USB, Wi-Fi

Manufacturers make a lot of money out of our penchant for printing, but the new EcoTank range is different – this all-in-one printer and scanner includes a four-tank silo into which you can squirt enough ink for, according to Epson, two years' worth of printing.

Epson makes up for the lack of ongoing cartridge sales with a steeper price. Being generous, we're looking at around a $200 price premium for the two years' ink supplied with the L355 when compared to equivalent Epson models. Is that good value? Using the ISO/IEC 24711 figures quoted by Epson, you'll get up to 6,500 pages from the L355's ink tanks, which equates to about 3¢ per page for that initial extra outlay – good for mono printing, especially.

Filling the tanks isn't difficult but you do need to squeeze the bottle to get the ink into the tank... too hard and you'll end up, as we did, with ink spitting out across the top of the other tanks. Be careful!

On the other hand, it's relatively easy to set up the printer over Wi-Fi – the software takes you through the process and automatically acquires the network name and password. It only falls down a little when it asks you things like whether you want to use DHCP to assign the IP address, which is just too jargony for most people to follow.

THE BOTTOM LINE. The key question is not whether the printer is worth the outlay – it is; but you definitely need to be sure you print enough pages to make it worth it for you. If you only print a few hundred pages per year, for instance, you could be buying a surplus of ink that will outlive the printer. **DAN GRABHAM**

EPSON ECOTANK L355

- ➕ Value for money
- ➕ Easy Wi-Fi setup
- ➖ Limited cloud printing
- ➖ No LCD screen

GREAT ■■■■

Leica D-Lux (Typ 109)

The compact camera that thinks big

$1,195 Manufacturer Leica, us.leica-camera.com

ISO range 100-25,600 **Zoom lens** 24-75mm (35mm format) **Resolution** 12.8MP

Compact cameras with large sensors are all the rage at the moment because of their ability to deliver the same image quality as an SLR or compact system camera, but in a smaller body with a fixed lens.

The camera has the same 16-million-pixel sensor as the Panasonic GX7, but the Leica only uses 12.8 million pixels in 4:3 mode. Because it's a multi-aspect-ratio sensor, 2:3 and 16:9 images use pixels that lie outside the area used by the camera in 4:3 mode. It's done this way so that there's no resolution penalty in swapping between the different aspects – on a regular camera, using anything other than the native aspect ratio means cropping the image – but it's a shame.

The aspect ratio can be changed between 4:3, 1:1, 16:9 and 3:2 using a sliding switch on the lens barrel just in front of the manual focusing/zoom ring. It's great having such quick access to the aspect ratio controls, and it makes you far more inclined to use them and consider composition more carefully at the shooting stage rather than rely on post-capture cropping. Raw files are captured in the selected aspect ratio rather than as a cropped version of the full sensor image, which can be adjusted to include areas outside the crop post-capture.

The D-Lux has a Leica DC Vario-Summilux 24-75mm (equivalent) f/1.7-2.8 lens. Like the rest of the camera, although this lens has Leica's name on it's actually built by Panasonic, and the company has invested a lot of effort to keep size down while ensuring it's a high-quality optic.

Although it's aimed at experienced photographers, the D-Lux has an Intelligent Auto mode which can be activated in any shooting mode by pressing the A button on the top of the camera. In any mode it produces impressive results, with images taken in daylight showing lots of detail and natural color.

At 100% magnification, JPEGs captured at ISO 25,600 look rather smudged and are best kept to below letter size. Simultaneously captured raw files have more detail, but there's lots of colored speckling which is visible even when shots are sized to make 6x4in prints. Ideally, it's best to keep the sensitivity to ISO 1,600 or lower. There, the image quality is very good, noise is controlled well and there's plenty of detail.

As a rule, images from the D-Lux have good dynamic range and images have a good range of tones. In high-contrast situations, however, the iDynamic system is useful, with the Highest setting still producing natural-looking JPEGs that have greater detail visible in the shadows.

THE BOTTOM LINE. The D-Lux is a really lovely camera to use, with a high-quality feel which matches the images that it produces. We love the traditional controls, too; it really is quicker and easier to control the camera in this way in many instances. **ANGELA NICHOLSON**

LEICA D-LUX (TYP 109)

- Large sensor in a compact camera
- High-quality lens
- Great real controls
- 16MP sensor produces 12.8MP images

EXCELLENT ■■■■

The D-Lux Typ 109 has some great features, including 4K video recording, a three-year warranty and a copy of Lightroom.

DiskWarrior 5

Slaying file system dragons for nearly two decades

$119.95 ($59.95 upgrade) **Manufacturer** Alsoft, alsoft.com

Requirements Mac OS X 10.5.8 or later, 1GB RAM or more, available USB port

DiskWarrior 5 now shows a Directory Optimization Index that displays disk condition.

Mac|Life EDITORS' CHOICE

DISKWARRIOR 5

▶ Still the best disk utility around

▶ Now ships on bootable flash drive

▶ 64-bit support for larger disk directories and drives

▶ No downloadable upgrade from earlier versions

AWESOME ■■■■■

DiskWarrior 5 is the latest release of a revered Mac utility dating back to the late '90s. The software repairs and rebuilds damaged disk directories, the roadmap computers use to find files and folders scattered across all of those platters. Optimized, error-free directories provide faster file access, fewer spinning beach balls, and a generally more pleasant experience.

Three years after the last major release, DW5 features a streamlined UI and finally delivers 64-bit support, which enables tackling the larger disk directories found on more voluminous modern drives. A new Directory Optimization Index provides a visual graph of disk efficiency, even before clicking the Rebuild button to get things going.

Unlike previous versions, version 5 ships on a bootable USB flash drive instead of CD or DVD. That decision makes sense considering Apple has eliminated internal optical drives, but it's a minor nuisance for upgraders, who can no longer simply download an update and create

their own disc at home. Instead, you'll have to get the new version shipped out.

But that's where the bad news ends: the thumb drive is capable of repairing the startup disk of Intel-based Macs that originally shipped with OS X 10.4 through 10.6, and can be upgraded for OS X Lion 10.7 and later systems using the included DiskWarrior Recovery Maker. This eliminates one downside of earlier versions, which couldn't be used to boot later Mac models without the purchase of a replacement disc.

Alsoft claims rebuilds are now twice as fast, and we noticed an immediate and very real performance difference in our tests with a mid-2004 Power Mac G5, mid-2007 Mac mini, and mid-2012 MacBook Pro with Retina display. DW5 also feels more stable compared to earlier versions, which would often consume excessive CPU time and occasionally even crash when working on immense directories.

THE BOTTOM LINE. 17 years later, DiskWarrior 5 remains a must-have disk utility, and is more flexible than ever on a USB thumb drive. **J.R. BOOKWALTER**
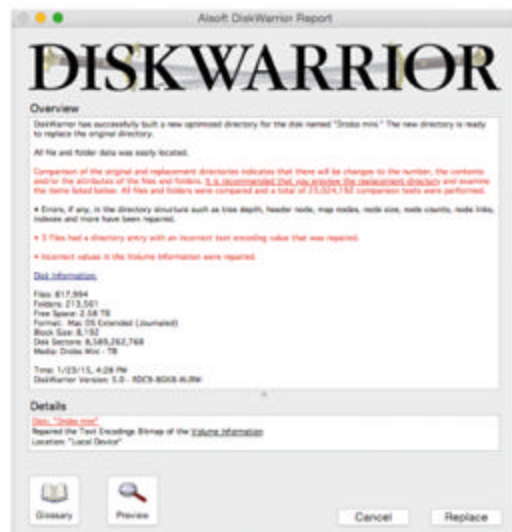
After scanning a drive, DiskWarrior 5 provides a thorough report prior to actually rebuilding directory data.
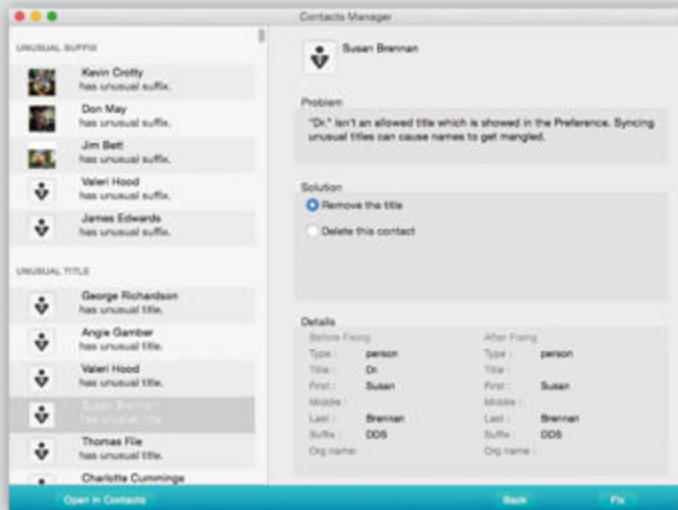
Contacts Manager

A manager that doesn't manage...

$18.99 **Developer** Enolsoft, enolsoft.com

Requirements Mac OS X 10.7 or later, 64-bit processor

In theory, Contacts Manager works with OS X's Contacts app to identify and fix address book problems, including duplicates, blank names, and invalid characters. But the software fails nearly all core tasks. Address book data is presented in a list view that defaults to First Name, Last Name, Company, Home Email, or Mobile. Users can add columns, but these aren't saved when quitting. Users can edit or delete data from the main window, but it's safer to scan contacts and see what it finds. In our case, it found entries with unusual title or suffix fields which were little more than a period after "Dr."; the app only offers to remove the title or delete the contact, so we had to use Contacts to remove the periods. (Confusingly, permitted titles and suffixes can be viewed – but not edited – in preferences.) Other problems included company-only entries coming up as having blank names and invalid characters where none existed. In a few cases, Contacts Manager reported duplicate addresses, with no way to confirm their identity prior to deletion; worse yet, the software incorrectly reported alleged duplicate entries that had no relation whatsoever.

THE BOTTOM LINE. Contacts Manager fails to provide the most basic address book maintenance tools. **J.R. BOOKWALTER**

CONTACTS MANAGER

- Scans for invalid data and other potential address book problems
- Fails to identify duplicate contacts
- Incorrectly categorizes company contacts as blank names
- Reports invalid characters that do not exist

POOR ■■□□□□

DockPhone

How ya gonna call?

99¢ **Developer** Raffael Hannemann, weareyeah.com

Requirements OS X 10.10 or later, iOS 8.1 or later, Mac must support Continuity

You can make phone calls from your Mac now! With Continuity in OS X Yosemite and iOS 8, you can make calls through your iPhone from the desktop. Which is great, but it's not like there's actually a full phone app – if you want to just dial any old number you're stuck. Not so with DockPhone, a menu bar add-on that brings up a little text/number field where you can type in phone numbers to call. That's not all it does, though: it can very quickly search your contacts to call people whose numbers you already have, and you can actually dictate the names of people instead of typing them in. Simple.

Maybe too simple? That's just about all it does, after all. The quick access to your contacts is nice, but not much more convenient than Spotlight. It works perfectly well, don't get us wrong – it's really nicely designed, and as fast as you'd hope. And it only costs 99¢. If you think you'll do a lot of calling from your Mac, get it.

THE BOTTOM LINE. A really nicely made add-on, though not everyone will need it. **MATT BOLTON**

DOCKPHONE

- Call any number from your Mac
- Fast contact search
- Only 99¢
- Light on features. (But, come on, it's 99¢)

GOOD ■■■□□
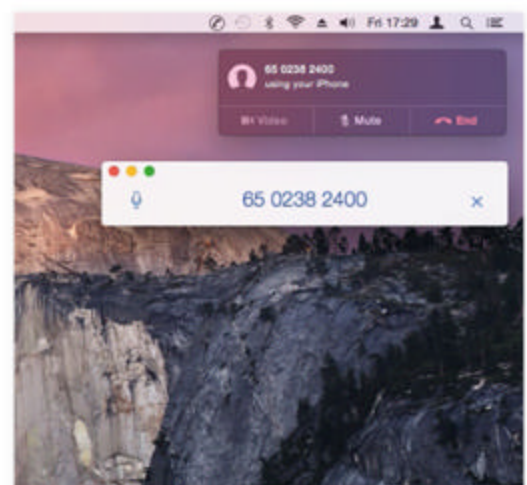
ViewSonic

ViewSonic VX2880ml

An attractive, affordable 4K monitor

$620 **Manufacturer** ViewSonic, viewsonic.com

Screen 28 inches **Aspect ratio** 16:9 **Resolution** 3840x2160 **Panel type** TN

4K monitors are coming in all shapes and sizes, but none looks quite like the 28-inch VX2880ml. It's distinctive, for sure, thanks to a two-part stand that makes it look like it's rearing up on its hind legs. ViewSonic recently said that it wanted to "bring 4K to the mainstream" with the VX2880ml, which is keenly priced at $620, and you can find it for less on various online retailers' websites.

Set up isn't difficult, but it's not quick either. Once put together, the monitor feels fairly sturdy, though the stand's three-pronged design makes it susceptible to being knocked over from the sides. There's also no way of adjusting height, nor can it pivot up and down or be rotated from side-to-side.

The VX2880ml's connections, located on a rear lip, aren't the most accessible because they point downwards. The advantage of this is that the VX2880ml can be easily wall-mounted using a four-bolt VESA mount. Around the back is a DisplayPort, mini DisplayPort and HDMI 1.4. All three ports can be used to drive the monitor set to its native 3840x2160 pixel resolution. There's also an MHL-HDMI port for connecting Android devices, and speakers, though they're poor.

The VX2880ml's menus are operated using touch-sensitive buttons located below the monitor's bezel. One toggles the on-screen menu, while the other goes through the various menus and input sources. They don't beat tactile buttons, but they're functional and let you quickly cycle through the options.

The VX2880ml uses a TN panel, rather than IPS, and its viewing angles are slightly narrower as a result. Image quality is excellent, producing images that are sharp with bold colors and inky blacks. Viewsonic has aimed to make the monitor one of the most affordable in its class, so at its maximum res the refresh rate is only 30Hz, rather than the conventional 60Hz – which means when you're using the desktop or playing games, there's a tendency for "ghosting", which makes cursor trails visible and operation juddery. The VX2880ml supports DisplayPort 1.2 in its settings, but selecting it doesn't make any difference to the 30Hz.

It's a shame ViewSonic didn't go for 60Hz, as picture quality is impressive. Running games at full resolution produced fantastic colors, with a sharp picture and oodles of detail – but it just wasn't as smooth as we'd want playing at 30Hz. Lowering the resolution to 2560x1440 or 1920x1080 brings the refresh rate back up to 60Hz, giving us the extra smoothness we wanted. Of course, that renders buying a 4K monitor somewhat pointless unless you're prepared to switch resolutions depending on what you're using for that minute – hardly ideal.

THE BOTTOM LINE. The VX2880ml's 30Hz refresh rate limitation makes it unsuitable for gaming or doing work in 4K. If you're after something for viewing 4K video, however, it's affordably priced and smartly designed. **KANE FULTON**

VIEWSONIC VX2880ml

➕ Design
➕ Image quality
➕ Reasonably priced
➖ Limited to 30Hz at 4K
➖ Poor speakers
➖ Fiddly setup

SOLID ■■■□□
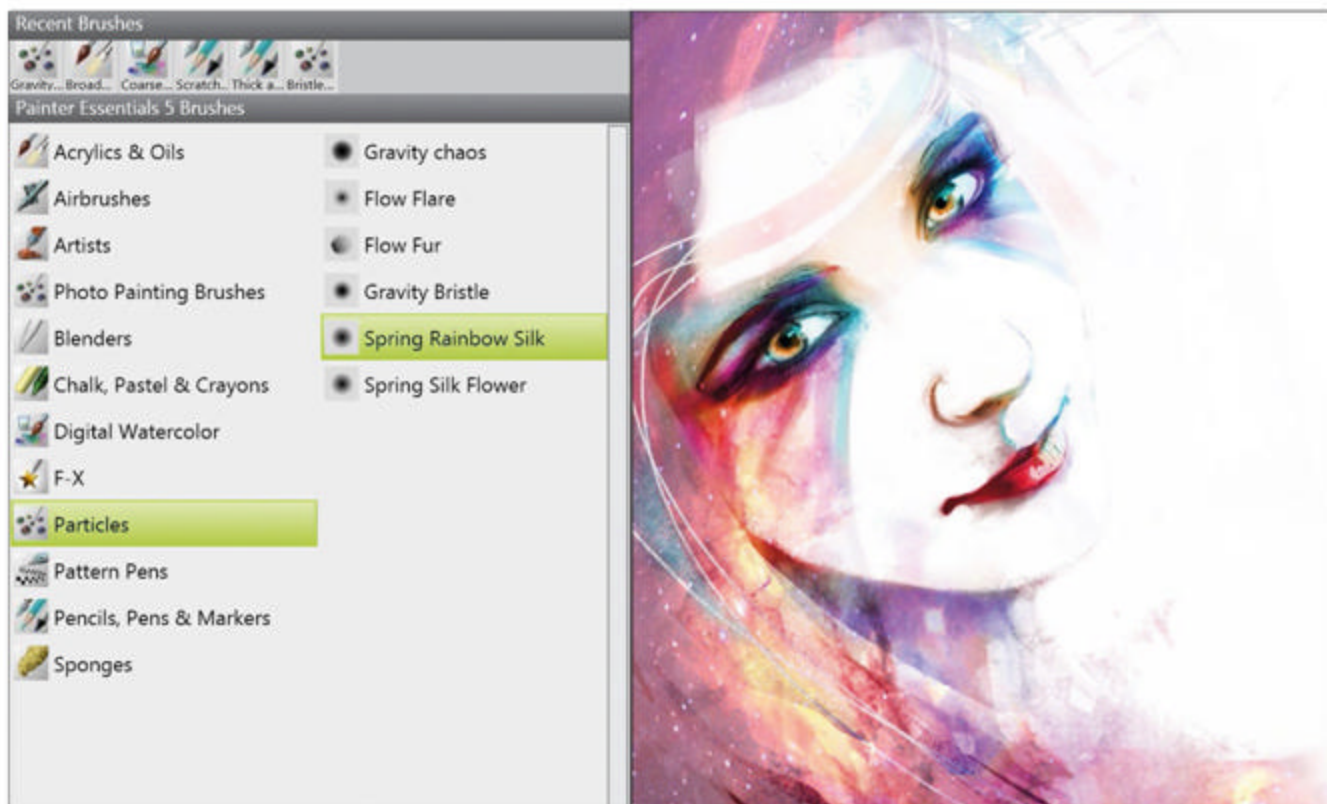
Painter Essentials can make your photos look like hand-drawn sketches or paintings.

Corel Painter Essentials 5.0

A fun, affordable program that converts photos into paintings

$49.99 Developer Corel, painterartist.com

Requirements Mac OS X 10.9 or later, 500MB hard disk space

We were impressed by the natural-media painting tools in the recently-released Painter 2015, but at over $429, it's far too expensive for most people. Painter Essentials 5 is not only cheaper – just $49.99 – but has a simpler, more streamlined interface that is much easier for newcomers to work with.

The welcome screen in Painter Essentials 5 offers two different modes for creating your artwork. Beginners can start with the automatic Photo Art mode, which allows you to import a photo and then sit back while the program paints over it using a variety of different brush styles, such as watercolours, oil paints, or pencils. More experienced users can create their own artwork in Drawing And Painting mode. This provides dozens of different brush and pencil styles, including a new Mirror mode that

reflects brush strokes like a mirror image. There are also some powerful new "particle" brushes that can create finely detailed strokes for painting hair or delicate materials such as silk.

Not surprisingly, Painter Essentials has fewer features than its big brother – only 106 different brushes, compared to 800 for Painter 2015. Even so, that gives amateur artists plenty of scope to experiment, while features such as the Photo Art mode mean that you don't need to be a skilled artist to get started. Just make sure you buy Painter Essentials – or download the trial version – from Corel's website, rather than buying the outdated Painter Lite that is still on sale on the Mac App Store.

THE BOTTOM LINE. At just $49.99, Painter Essentials is a powerful and fun graphics tool for amateur artists. **CLIFF JOSEPH**

COREL PAINTER ESSENTIALS 5.0

- Automatic Photo Art mode
- Much cheaper than full version of Painter
- Over 100 different freehand brushes
- Freehand mode could provide more help for beginners

GREAT ■■■■□

QNAP TS-251

A versatile barebones NAS drive

$340 **Manufacturer** QNAP, qnap.com

Connectivity 2x Gigabit Ethernet, 2x USB 2.0, 2x USB 3.0, 1x HDMI **Compatibility** 2.5in/3.5in HDD & SDD **Dimensions** 6.6x4x8.9in

This two-bay TS-251 drive unit is sold "unpopulated", so it's up to you to provide your own drives. Installing them is easy enough, as the two drive bays pop open with a flick of a switch. Tucked around the back you'll find two Gigabit Ethernet ports for network connection, two USB 2.0 ports and one USB 3.0 port. There's another USB 3.0 socket on the front as well. It even includes an HDMI port so you can plug it straight into an HDTV and play videos without having to use a computer. In fact, the TS-251 includes built-in apps for playing music, photos and videos, as well as performing backups, auto file downloads or even connecting to networked surveillance cameras. That will be overkill for those wanting a straightforward network drive to back up their files, but the TS-251 is a versatile storage system.

THE BOTTOM LINE. A bit complicated for beginners, but will appeal to those who like to build their own systems. **CLIFF JOSEPH**

QNAP TS-251

- Good connectivity
- Versatile built-in apps
- Complicated to set up
- Price doesn't include any drives

GREAT ■■■■

Buffalo TeraStation 1200

A network drive with RAID and Mac support

$320 **Manufacturer** Buffalo, buffalotech.com

Connectivity Gigabit Ethernet, 1x USB 2.0 **Formats** RAID 0, 1, JBOD **Dimensions** 5x3.4x8.4in **Weight** 5.3lb

Buffalo's dual–bay drive supports RAID 0 and RAID 1 modes. We tested a model with two separate 1TB drives that retails at $320, but if you need more storage there's $600 model with two 4TB drives. There's also a USB 2.0 port for an external drive, along with Gigabit Ethernet for connecting to your home or office network. Installation is straightforward: Buffalo's Navigator software detects the TeraStation, and configuration is handled in a web browser. Buffalo supports Mac users well, explaining how to set up Time Machine backups or iTunes Server.

The drive is formatted using RAID 1 – "mirrored" to provide duplicate backups – and when backing up a 20GB iTunes library over an office network, the TeraStation provided write speeds of 31.25MB/s and read speeds of 45.5MB/s. Fairly modest, but not bad for a NAS/RAID drive in this price range.

THE BOTTOM LINE. Not the fastest drive, but the TeraStation provides reliable backup at a competitive price. **CLIFF JOSEPH**

TERASTATION 1200

- Good price
- Easy to set up and use
- Time Machine and iTunes support
- Modest performance

GREAT ■■■■

Logic Pro X 10.1

Apple's pro-level music powerhouse
embraces electronica, EDM and hip-hop

$199.99 **Developer** Apple, apple.com

Requirements OS X 10.9 or later, 64-bit processor, 4GB RAM

Apple's professional music package is a familiar sight in commercial recording studios and on arena stages. It offers multi-track recording, great MIDI features, effortless loop-based music creation and stacks of virtual instruments. With the Logic Pro X release it gained tools for fixing timing and tuning, a vastly improved interface, better MIDI handling and the jaw-dropping Drummer, which produces incredibly realistic "live" drumming.

Drummer wasn't perfect though: in Logic Pro X the available drummers were fine if you wanted to make rock, folk, country or metal, but if you wanted to make dubstep, EDM or hip-hop you'd need to turn to your loop library or create the beats by hand. When even the most traditional musicians tend to have at least some electronic elements in their music, that was a major omission. With Logic Pro X 10.1, Apple has made the program more useful to electronic music makers, and it has also fixed some bugs and introduced some useful features for musicians and producers of all kinds in an update that's free to existing users.

The most obvious new feature is the addition of 10 new electronic and hip-hop drummers that make beat-making much easier. You can stick with the presets or fine-tune the drum machines via Drum Machine Designer, and the new Note Repeat and Spot Erase features make it much easier to edit MIDI drum patterns. Piano Roll has been tweaked to make it more drum-friendly, the new Brush Tool enables you to create a series of notes with mouse or trackpad gestures and the new Time Handle feature enables you to expand or compress MIDI, so for example you might take a pattern and slow it down without changing how it's played.

The 10.1 update isn't just for electronic and hip-hop afficionados, though. There are more than 200 new synth sounds and a new instrument, the Mellotron; there's a new Smart Quantize feature that can fix timing without removing deliberate flourishes such as piano figures or drum fills; you can automate regions instead of entire tracks and move the automation data when you move the region or regions; there's a redesigned Compressor plug-in; the Plug-In Manager is now customizable and there's support for AirDrop in Yosemite for sharing projects with other Macs.

Logic Pro X 10.1 is user-friendly enough that coming to it from Garageband is no longer terrifying, but behind the friendly face is a powerful pro-level digital audio workstation. And it's affordable. Where previous versions were among the most expensive music packages you could buy – in 2004, Logic Pro 6 was $999 – Logic Pro X 10.1 delivers incredible value for acoustic, electric and electronic artists alike.

THE BOTTOM LINE. Great new features, superb new sounds and better ways of doing things: a must-have for musicians. **GARY MARSHALL**

Mac|Life
**EDITORS'
CHOICE**

LOGIC PRO X 10.1

▶ Drummer embraces electronic beats

▶ Time Handles and Smart Quantizing

▶ New synths and Mellotron too

▶ Really useful editing improvements

AWESOME ■■■■■

We love Drummer's live-sounding drums, and with this release it gets electronic kits and beats too.

Scrolls

A clever blend of fantasy, tactics and deck building

$5 **Developer** Mojang, mojang.com

Requirements OS X 10.6, Intel Mac, 2GB RAM, Intel HD Graphics/Nvidia GeForce 8400/ AMD Radeon HD 2400, 700MB HDD space

Spectating high-level play is a good way to check out new scrolls and pick up some tips and tricks.

Scrolls is a work of game-design alchemy, mixing the strategy of a tabletop miniatures campaign with the deck-building of a collectible card game. Far from being muddied or muddled, however, Scrolls' hybrid lineage produces a refreshing game that is elegant and demanding.

Your goal is to destroy three of your opponent's five "idols" while protecting your own, using a deck of 50 cards (called "scrolls") to organize and distribute hulking fighters and mystical enchantments. Each turn of a Scrolls match has three phases, the first of which is the most novel and most complex: players sacrifice cards to gain resources or to draw more scrolls. Sacrifice too rarely, and you'll run out of scrolls and the resources to play them; too often, and you'll be overwhelmed, your idols cast down. Scrolls' sacrifice system is knotty and difficult to learn, but the tension, variety, and flexibility it affords make each turn satisfying.

From there, your brigade of shining knights, shambling undead, and copper-plated droids

pop into existence on a hex-tiled board. As a detached god-commander, you manage cooldowns and positioning based on each unit's stats and special abilities: a Vitality Well periodically heals nearby allies, while a Pest Dissimulator poisons enemy soldiers. Finally, your pint-sized army attacks, whacking and wheezing with outsized expressions that belie their diminutive stature.

Scrolls is tactically rigorous, but a lack of information will be the new player's biggest barrier. There's no way, for example, to see your scroll collection compared to the complete 360-card set. Peer-to-peer trading and the black market are vital features, but they're useless until players know which scrolls to look for. Deck-building suffers similarly, and some mechanics, such as the special resource "Wild," are never explained at all. Thankfully, there's plenty of casual, low-pressure play and a notably generous in-game purchasing scheme that mitigate some of Scrolls' opacity. "Trials" – a set of puzzles played under special conditions – are a good way to ease into the more competitive multiplayer modes, which include a ranked ladder and "Judgment," which gives each player a randomized deck.

THE BOTTOM LINE. Despite its steep learning curve, Scrolls is refreshing in its design and generosity, offering the best of both tactical play and collectible card games. **JOSEPH LERAY**
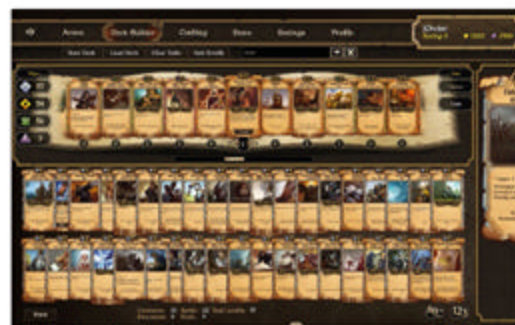
This deck is based around Knight units, which specialize in passive boosts and attack buffs.

SCROLLS

▶ Dense, varied strategy

▶ Clever sacrifice mechanic

▶ Generous business model

▶ Steep learning curve

GREAT ■■■■☐

Endless Legend

A legendary addition to the 4X strategy genre?

$34.99 **Developer** Amplitude Studios, amplitude-studios.com

Requirements OS X 10.8 or higher, 1.7GHz Intel Core i5, 4GB RAM, 512 MB AMD Radeon HD 4850, NVidia GeForce 640 or Intel HD 4000, 3GB available space

The many possibilities in Endless Legend give the game real longevity.

Auriga is a dying planet, and you'll play as one of the many clans emerging from its depths to colonize the surface in this Civilization-like game of building empires and warfare. Factions vary wildly in their traits: the Drakken are the masters of gruff dragon diplomacy, the Roving Clans are nomadic traders who can move whole cities, while the Cultists seek to convert minor factions. Factions' traits and strategies fundamentally clash with others, forcing players to focus on their core strength, whether that is technological enlightenment or military dominance.

Auriga is divided into regions, which can only hold one settlement, forcing a scramble for resources. The Aurigan winters slow your expansion and armies to a crawl. Summer brings verdant relief, but every subsequent winter gets harder still. The seasons, regions and faction-specific story quests imbue the game well with lore and character.

Sadly, the tutorial doesn't cover enough, the "Archive" in the menu links to a wiki with cursory explanations, and there isn't enough information about your odds of winning a battle before you commit to it. Once in a fight, there's great tactical depth; battles are slow and clunky, but can be played automatically if you prefer, as can city construction and even exploration.

THE BOTTOM LINE. An engrossing and different take on the strategy genre, offering something for everyone. **ALAN WILLIAMSON**

ENDLESS LEGEND

- Wildly different factions make for unique strategies
- Micro- or macro-manage your empire as you like
- Auriga has a unique and fascinating history
- Tutorials barely sufficient. You'll need the wiki

GREAT ◼◼◼◼◻

The environments juxtapose classical architecture with futuristic objects.

The Talos Principle

Sounds like a cheesy '70s thriller... most definitely isn't

$39.99 **Developer** Croteam, croteam.com

Requirements OS X 10.5.8 or later, Intel Core 2 Duo, Nvidia GeForce GT 9600M/320M, 512MB VRAM

THE TALOS PRINCIPLE

- Intriguing philosophical story
- Challenging, but not frustrating
- Stunning locations and music
- Can't save during puzzles

GREAT ■■■■□

The ancient Greeks didn't have Macs, lasers or proximity mines. Instead, they could wander the countryside and ponder the meaning of life. As you wander the beautiful islands of The Talos Principle, you'll wonder too, since it's as much a philosophical mystery in a puzzle game.

Your avatar awakens to the voice of Elohim, a program-deity instructing you to use jammers, laser-focusing prisms, hexahedrons, and your brain to collect sigils and reach new worlds. You'll think inside and outside the literal puzzle boxes: puzzles are self-contained, but extra challenges require you to "break" the rules and traverse multiple rooms. You'll visit Greek, Egyptian and Medieval zones, yet all the while, you're surrounded by advanced technology.

Puzzle games must answer two very different questions: do I feel clever when I win, and what happens when I get stuck? The Talos Principle addresses both admirably. You can attempt most sigils at your whim, and there's a steady increase in complexity. You can't save in the middle of puzzles, and some are fairly long, but most rely on involved problem-solving rather than sheer dexterity. And there are over 120 puzzles to work through…

The story itself is a puzzle, told through terminals and messages from the ghosts of androids past. Are these sentient programs vestiges of humanity, or another test from Elohim? Dare you climb that forbidden tower? These questions stay with you as you track down the sigils, and you'll want every last one.

THE BOTTOM LINE. For a game about puzzle-solving androids, The Talos Principle has an abundance of humanity. **ALAN WILLIAMSON**

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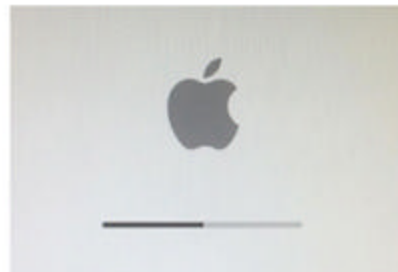
>>>ASK

TECH SUPPORT & TECHSPLANATIONS

Can you hear me now? If not, you may still be able to fix things...

The progress bar when you boot Yosemite does not mean anything is wrong with your Mac.

Is this a firmware update or is something amiss?

Every time I turn on my recently-updated-to-Yosemite Mac mini, it shows a screen akin to what happens when you update an iOS device. Is this normal? I'm new to a Mac, although I'm familiar with iOS devices. My mini has a 2.5GHz Intel Core i5 processor with 8GB of RAM and it's slow, despite having 445.72GB out of 500GB free.

The loading bar at boot time is normal. Yosemite introduced this instead of the spinner that we had before, to give you an idea of loading progress. Progress bars don't advance at an even pace; it's only a rough guide. We have a Mac mini with the same spec, and Yosemite is slower to boot up than Mavericks, but once started they run at the same speed.

Incidentally, that 445GB of free disk space has no effect; disk space only affects how much room you have. It won't slow your Mac down until you're out of space or working memory. The speed of the disk drive does have an effect on how zippy OS X feels, though. If you upgrade your internal hard disk to a SSD, you'll see a performance boost.

Time Machine won't restore to a new disk

I've just restored my Late 2012 (Yosemite) iMac. I was asked to restore from Time Machine, but I opted not to do this because I wanted to restore certain folders only, so I decided to reinstall the OS instead. After a few days, I noticed Time Machine had done a few backups, but now it will neither let me view nor restore any of my files

FACETIME CALLS ARE SILENT

The update that enables Macs to make and receive calls using an iPhone is causing problems for me. I can hear other people, but they can't hear me. I tweaked the microphone settings, reset the FaceTime settings and called Apple to resolve the issue, but nothing's changed.

Other people can't hear you at all? Or other people can faintly hear you but can't make out anything you are saying? We've had a few reports of the latter, particularly from those with MacBooks as desktop replacements. The normal positioning of a laptop for use on a desk doesn't put the microphone near enough for you to be heard over normal background noise; using it on your lap helps, but the best solution is an external headset. Unfortunately, Yosemite appears to have stopped working with some external mics for FaceTime and Handoff. Try typing sudo killall coreaudiod into Terminal. Depending on your mic this might work for both, just for FaceTime, or not at all.

from before my system restore. Time Machine says it has 41.9MB free of 1TB, so my data is still on there!

It's on there, but Time Machine isn't showing it because it thinks it belongs to a different Mac. Every disk volume has a "universally unique identifier" (UUID) assigned to it. Time Machine separates backups according to the UUID of the source disk, and it only shows you backups that belong to the same UUID _ otherwise you'd end up with a mess of files from two different disks getting merged in the same folder. When you deleted your old volume, you created a new one with a different UUID.

In future, use Migration Assistant: this relaxes the UUID constraint, so that you can restore from one Mac to another. By skipping this step, Time Machine thought it was looking at a new Mac and created a new backup set. To get to your old data back, use the tmutil command in Terminal. First find the newest snapshot of the old backup set; click Go > Network in Finder and select your Time Capsule. Click the volume that appears. This shows the disk image for Time Machine. Double-click this and "Time Machine Backup" appears in the Finder sidebar. Click this and you'll see a folder called Backups.backupdb. Inside that is a folder for the old backup set and one for the new set.

Open Terminal and type sudo tmutil associatedisk -a / (with a space after "/"). Don't hit ⏎; in Finder, drag the folder for the most recent backup from the old set to the Terminal window. This will fill in the folder path to the tmutil command. Now hit ⏎. Your current disk
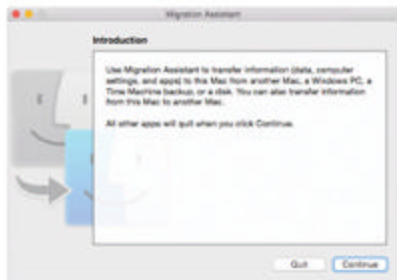
Migration Assistant is the easiest way to transfer a Time Machine backup to a new disk.

> My monitor's resolution is stuck

My 27-inch Dell Ultrasharp monitor has been acting up. It's been fine for 18 months, but recently I got a new MacBook Pro and now I can't get it to display at full resolution. It is stuck at 1280 x 768, which is smaller than it used to be on my old Mac!

The monitor hardware is probably fine. It's more likely to be a problem with the EDID (Extended Display Identification Data) configuration – EDID is a way for monitors to tell your graphics card the best way to format images for that particular screen.

Some Dell monitors don't list their native resolution properly, and if your graphics card driver doesn't override this value, you can be stuck at 1280 x 768 or 1360 x 765. Open System Preferences > Display and hold ⌥ while you click the "Scaled" button. This shows all the display resolutions that your graphics card can output, and you can manually force 2560 x 1440.

If the monitor still won't cooperate, you'll need to use an EDID override file. These are just text files, but creating one for yourself from scratch is a tall order. Fortunately there are override files for Dell monitors at embdev.net/topic/284710.

UUID is now associated with the old backups and you can restore your data from Time Machine.

Jailbreak dilemma
I inherited a jailbroken 5s, but I don't want those features. Unfortunately, updating to iOS 8 doesn't work – I just get stuck on a gray screen...

Updating iOS removes any jailbreaks installed, which is why most modern jailbreaks like Pangu and evasi0n turn off the ability to update your iPhone "over the air." But you can still update your phone through iTunes. Just connect your phone with the USB cable to a computer running iTunes, click the devices icon on the toolbar, select the phone and click "Check for Update."

A beige screen
My iPhone 5 Maps app has become unresponsive, and shows a blank beige screen. I don't want to reset the phone to factory settings. Is there anything I can do to restore it?

Sadly, although you're reluctant, you're probably going to have to reset the phone. Try the Reset All Settings option in General > Reset, as this doesn't actually delete any data. This might fix things if the map has got itself jammed on the highest zoom level so that no detail is visible. But it's more likely that one of the downloaded map tiles is corrupted, and the only way to clear that is to use "Erase All Content and Settings." Make sure you're all backed up first, of course!

>>>

Knowing a file format is all well and good, but it won't necessarily give you insight into the codecs used.

iPhoto won't let me import sound with my movies

I've owned a Fuji HS10 bridge camera for several years, to take photos and video clips that I make into iMovies. That was, until I updated OS X! I don't know whether this update caused the problem, but suddenly video clips no longer play recorded sound. If I transfer the video clips to my iMac via Image Capture, I can play them in QuickTime Player. I then arrange for all video clips ending MOV to open and play in QuickTime.

Yet the clips still have no sound in iPhoto. Clips transferred to iPhoto lose the MOV. I have tried to add MOV, but this doesn't work. I have replaced my iMac and MacBook with new ones, and the problem remains.

This is all to do with codecs and container formats. A codec (coder/decoder) is the particular way in which a data stream is encoded for transmission or storage, and how it's decoded for playback or editing. The QuickTime MOV file format, however, is just a container for multimedia, which itself can be in lots of different codecs.

Your Fuji HS10 records audio as a mono stream encoded with the WAV codec, which is uncompressed audio. QuickTime happens to supports WAV within the MOV container format, so audio plays fine in QuickTime Player. But iPhoto no longer supports the WAV codec, and there's no real reason why it should – it's a photo (not a video) app.

You're better off importing the footage from the camera directly into iMovie, or via Image Capture to MOV files, and then import to iMovie.

Mail won't connect to Outlook

I can't connect to Outlook in Mail. I was able to initially, logging in via Google Chrome to outlook.com, but now when I try to use the same password and all the same details, I can't log on.

If you can still access your email through the browser, try setting up the account using IMAP instead of POP3. Go to Mail > Accounts… and delete the old Outlook account. Then click the + sign to create a new account and select "Add Other Account…" Enter your address details, but use the wrong password.

When this fails to login, you'll be told that the "account must be manually configured." Choose IMAP and add the correct password, and it should sync your email address correctly with the Mail app.

Persistent Calendar errors

My iCal app regularly warns me with "The server responded: 403 to operation CalDAVSet Property QueuableOperation." It then tells me that I have to go offline or ignore the error message. Ignoring it just makes it come back again later. (I'm running OS X Lion, by the way.)

One of your calendars probably has some entries that are corrupted or invalid. You should be able to see which one from the text of the error message above the line you quote, but if not, try unchecking your calendars from the sidebar one by one, until the message stops appearing. Now you can try deleting all the old entries in that calendar and re-enabling the calendar.

Another way to approach it would be to back up your calendars first using File > Export > Calendar Archive. Now open iCloud Preferences and uncheck the Calendars box. Sign out too, for good measure. Close and reopen Calendar and then re-enable iCloud syncing in iCloud preferences. If even that doesn't fix it, go to your Library folder (from Finder, use Go > Go to Folder… and enter ~/Library) and delete Preferences/com.apple.CalendarAgent and Preferences/com.apple.iCal.plist.

Finally, restart Calendar, re-enter your account info and hope the errors have gone away.
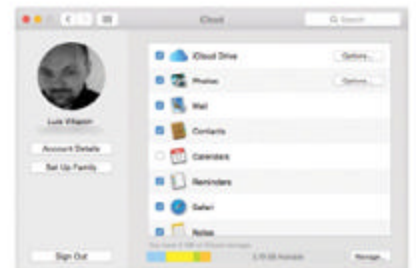
Taking Calendars out of iCloud temporarily can often solve strange synchronization problems.

CREATE

HOW TO DO ANYTHING ON YOUR MAC, iPHONE & iPAD

Make the most of Preview

Find out about the powerful little app that's packed full of features

PREVIEW IS ONE of the unsung heroes of OS X, but its status as the default app for opening images and PDFs means it's often not taken as seriously as it should be. Preview is fast, powerful and very versatile, and this tutorial will give you some idea of what it's capable of.

For example, when you open a PDF form, Preview automatically detects the fields you need to fill in, and you even have the ability to add a digital version of your signature if you want to.

To do this, sign a piece of white paper in black ink, open a document in Preview and then select Annotate in the top menu bar. From the drop-down menu that appears select Signature, then Create Signature from Camera…

Now hold up your signed piece of paper to the camera and line it up with the blue line on the display. Once the signature has been detected it will appear in the box. If you're happy with the way it looks, click Accept and you'll be returned to your document. Your mouse pointer will now turn into crosshairs, enabling you to click the place in the document where you would like to place your signature and then resize it. To see what else Preview can do, read on… **ALAN STONEBRIDGE**

AS THE DEFAULT APP FOR OPENING IMAGES, IT'S NOT TAKEN AS SERIOUSLY AS IT SHOULD BE

IMAGE EDITING

The Color slider is a very effective tool if you want to make quick adjustments to an image. The top four sliders enable you to brighten and enhance your images with ease.
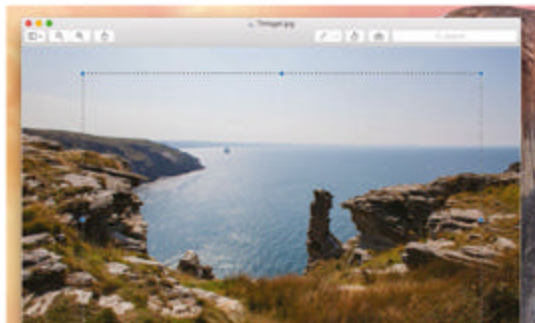
1 Quickest crop ever

Double-click an image and Preview will open and display it. Use the rectangle marquee tool to quickly drag a frame around the area you want to keep. Adjust by dragging the sides. Hit ⌘+K and the image will be cropped to the area you selected. To undo, hit ⌘+Z.
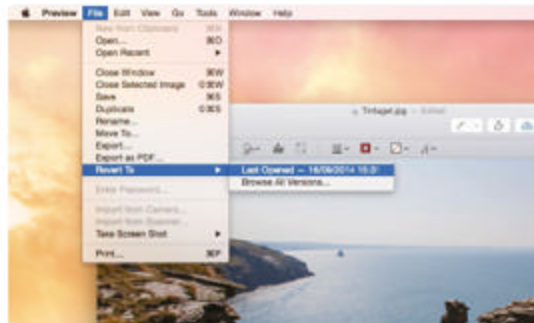
2 Save, use, forge on

With the crop in effect, you can save the image with ⌘+S. This will overwrite the original picture. If you want to go back to the original, uncropped image, you can do so using Versions. Select File > Revert To, then click Browse All Versions.
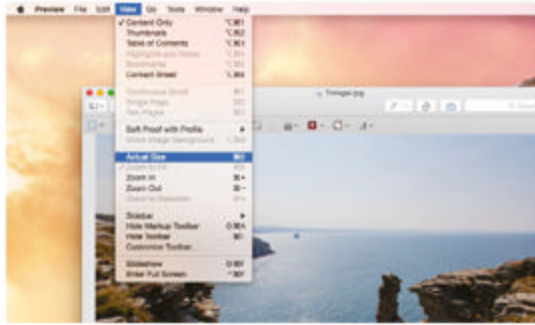
3 Check your size

Before resizing an image, check how big your original is. Preview displays the full image by default; get the bigger picture using View > Actual Size, or press the ⌘+0 (zero) shortcut. This will instantly show you just how big or small the image is.
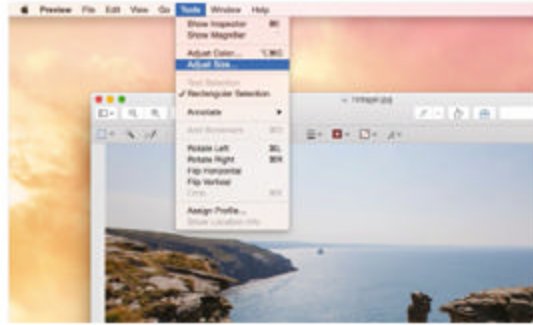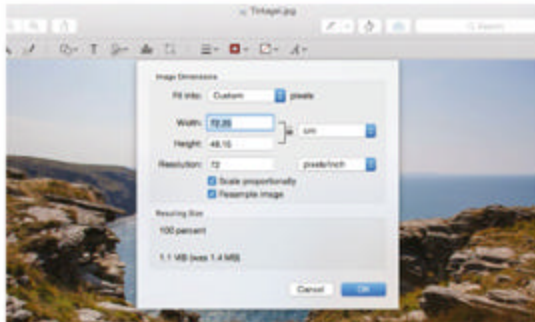

4 Adjust it

To change the size of the image, use Tools > Adjust Size. A drop-down menu appears that lets you change the size in a number of different ways. By having an idea of the true size, you'll know what is required for the resizing job at hand.

5 Pick a value

Choose how you want to specify the resize. The simplest option is the percentage value but the others all have specific merits. Pixels can be used to create perfect images for web posts, or you can use measurements for printing or page layout purposes.

6 Pick a percentage

Here we've reduced the dimensions by 50%. The default resolution in most cases is 72 pixels per inch, which is fine for viewing on a (non-Retina) screen or the web, but not for printing (go for double that), let alone professional publishing (300 ppi).
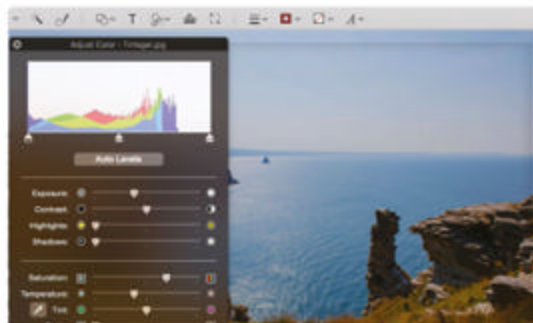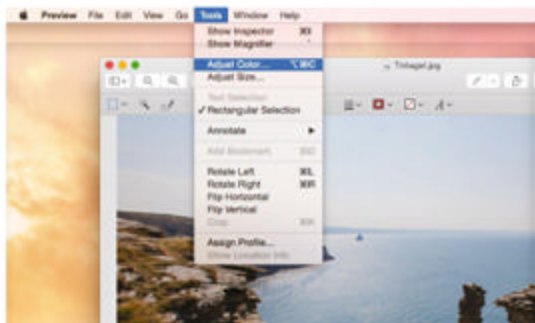
7 Time for an edit

You can quickly edit an image with Tools > Adjust Color, or ⌘+⌥+C. The tool window that opens is also used in iMovie, and is similar to the advanced controls in iPhoto. These enable you to make quite precise adjustments to your image.

8 Stunning sliders

Use the sliders to adjust overall exposure and contrast, or tweak the image's bright or dark tones separately. Use the Saturation slider to boost or subdue the color; use the Sepia slider to create an antique effect. You can send, share or upload the image.

JARGON BUSTER

PDF
Created by Adobe, the Portable Document Format was originally proprietary to the company but has since become an open standard for displaying complex text and images in one document.

KILLER COMBO

To combine pages from different documents pages in Preview, open the documents, select View > Thumbnails for each doc, then drag pages from the sidebar in one doc to the other. Finally, select File > Save.

Command your Mac

Use Automator to automate tasks triggered with voice activation

IN OS X YOSEMITE, Apple has revamped how you can speak to your Mac. Now going under the new name of Dictation Commands (previously Speakable Items), it enables you to specify, using typed words, the command you want to say in order to run a workflow (see Jargon Buster).

The simplest way to set up a command is in Accessibility under System Preferences. Under Dictation, "Enable advanced commands" lets you create new commands. Click the "+" button to show a form where you can specify the words you want to say, limit your command's availability to a single application, and define the Mac's response – to open a file or an app, paste text or other data, run an existing workflow created in Automator or Script Editor, or mimic a keyboard shortcut being pressed.

Dictation commands are limited in what they can interpret – you can't just add words on the end of one to, for example, specify the name of an external drive to eject. The "Run AppleScript" or "Run JavaScript" actions can extend Automator's capabilities and overcome this, but that's somewhat beyond our scope here.

Nonetheless, the workflow we'll create is still practical and useful, as it enables you to create a new event without having to switch to the Calendar app. **ALAN STONEBRIDGE**

YOU CAN SPECIFY THE COMMAND YOU WANT TO SAY IN ORDER TO RUN A WORKFLOW
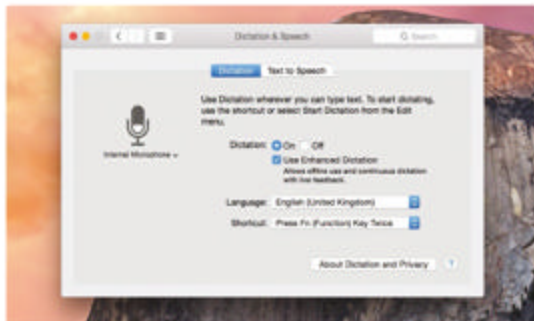
1 Preparation

Open System Preferences, click Dictation & Speech, and turn on Enhanced Dictation, so your Mac can interpret speech by itself. This requires a a large download – the amount varies by language. Ensure the correct microphone is selected on the left.

2 Start listening

The shortcut to tell your Mac to listen for dictation is two quick presses of the `fn` key, though it can be changed here. Try it, and you'll hear a chime and see a floating window. Click the button on the floating window, press `fn` once, or say "stop listening" to cancel.
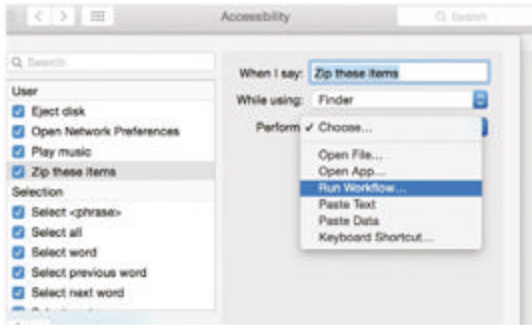
3 Enable user commands

Go to System Preferences' Accessibility pane and find Dictation. Select it, then press "Dictation Commands…" to see those OS X already knows. Check "Enable advanced commands" to add new ones and a "+" will be revealed, so you can define new commands.

4 Create a command

Open Automator in the Applications folder, create a new document, and choose Dictation Command as its type. Unlike other types, Dictation Commands don't take input from the active app when run. Assemble the actions that achieve your goal.
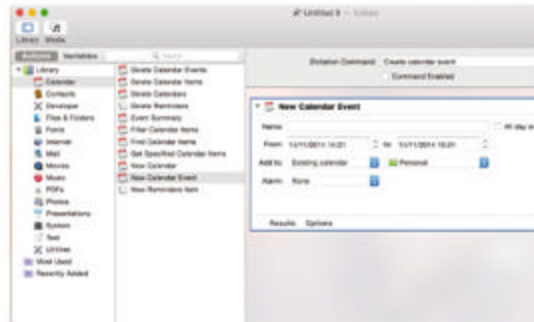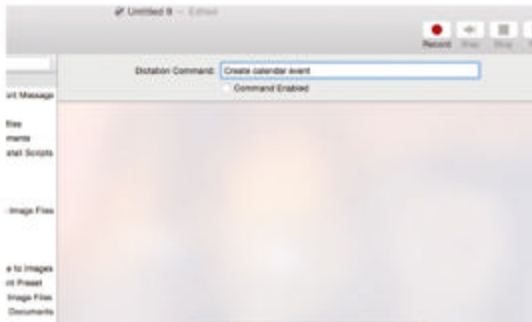
5 Specify a phrase

Above the workflow is a box in which you can enter a phrase that tells your Mac to run it. This can be one word or several. Test how accurately it is recognized by opening TextEdit, pressing the dictation shortcut and then saying it.

6 Assemble some actions

Our single action creates a new calendar event without leaving the current app. With Actions selected, select Calendar in the same column and drag the New Calendar Event action from the column into the area to the right.
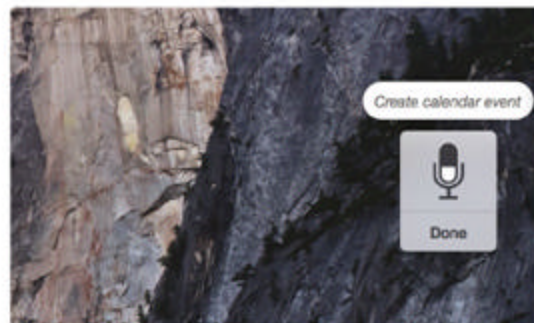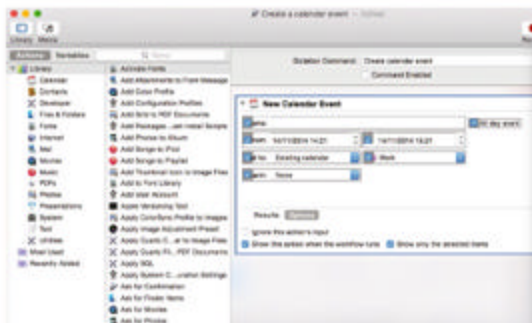
7 Choose event details

Click Options and check "Show this action when the workflow runs" so you can enter event details. Also turn on "Show only the selected items" and check those you want to provide. Choices you make now, such as the selected calendar, become default settings.

8 Command your Mac!

Check "Command Enabled" at the top of the workflow and save the document – we've named it after our command. Quit Automator, then press the Dictation shortcut. When you speak your command, you'll see a speech bubble to show it's being recognized.
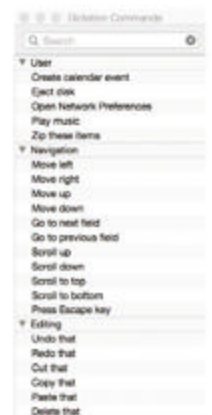
Work together on Pages docs

Share document tasks with others using Pages and iCloud

WORKING ON A DOCUMENT with someone else can play to your respective strengths. One of you might be good at graphs, the other strong at headlines. However, sharing documents can be confusing if you don't know which version is the most recent or which changes have been applied to which copy. Thankfully, there are tools to keep track of changes built into both Microsoft Word and Pages. In the former you can turn on Track Changes in Review; Pages offers an equivalent setting as soon as you start typing text.

Collaborative working using Pages is easy – it's managed by iCloud. Pages is free with all new Macs, and it includes useful web-based tools. This means you can use iCloud to store and access shared docs – you don't need to send files to your collaborators, but store them online so you always have the most recent version. So if one person creates a document and the other adds images, the latest version will be available to you both at **icloud.com**. You can even store and share documents you've created through iCloud – you can choose iCloud as a location to save your files, but even they're stored offline, as soon as you choose to share the document with someone, Pages will give you the option of moving the document to iCloud. **ROSIE HATTERSLEY**

COLLABORATIVE WORKING WITH PAGES IS EASY - ACCESS SHARED DOCUMENTS VIA iCLOUD

3 ways To work with shared Pages documents and iCloud
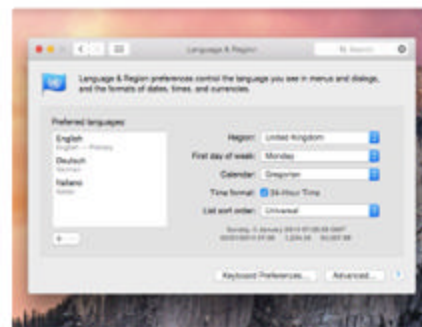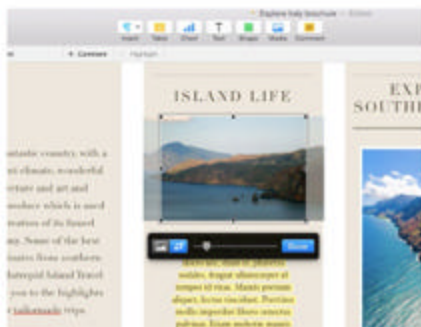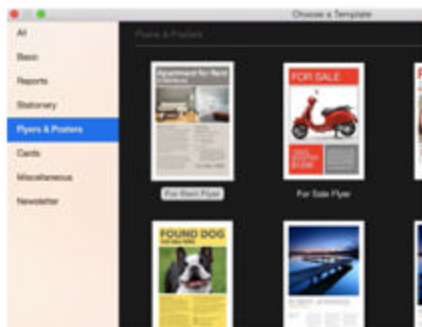
1 Flexible templates

Pages has a selection of templates you can work on in tandem with others. To find a suitable template, open Pages and browse the designs by document type. You can customize the templates, too. The latest version of Pages for iCloud added 50 new fonts. As long as you're working with a Pages document in iCloud, all the elements will available to other Pages users.

2 Editing photos

Photos you import into Pages docs can be directly edited from within Pages. To do so, right-click the photo then choose from the editing options including crop, rotate and resize. The area you're editing is shown as a mask. You can also change the transparency in the Arrange section of the photo editor; adjust which layer it's on and whether text should wrap around the photo.

3 Multilingual

Pages for iCloud supports multiple languages. This is potentially useful if you want to design a brochure and then replace the English text with French, Italian or Arabic, so you can quickly produce several versions of a publication in different languages. To use multiple languages on your Mac, go to System Preferences and set up international keyboards.

Visual guide **Sharing and editing options in Pages**
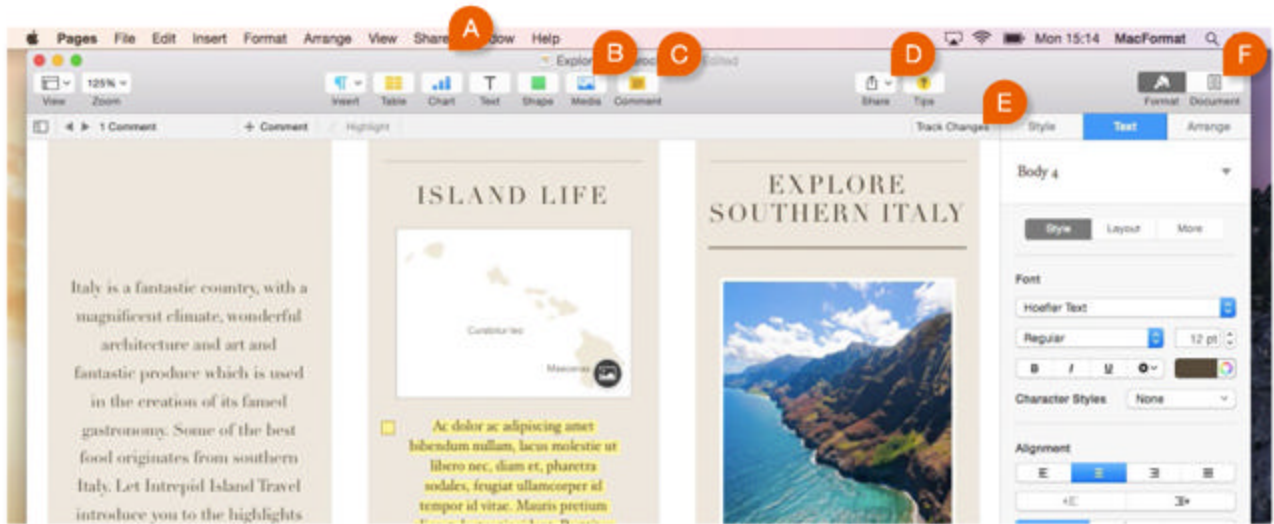
A Protecting shared documents

You can protect your shared document by adding a password to it or setting the document to be viewable but not editable. To use these options click the View Share Settings in the Share menu and then choose either Password or View Only. This will help you keep control of the document and reduce the likelihood of it being shared or amended without your knowledge.

B Insert photos, video or sound

To import visual or audio elements, choose Media from the top menu and select Photos, Music or Movies. Tracks stored in iTunes and videos stored in your iMovies folder can be used. To import a photo drag it into place on the document from your Aperture or iPhotos library on your Mac. To search for an click the magnifying glass then type a keyword or view by place, face or rating.

C Comments and instructions

Comments can be used to draw someone's attention to an issue with the structure or content of your shared document without interfering with the document layout. Just click the Comment option at the top of the Pages document and then type your message. It will appear wherever your cursor is currently inserted in the document. You can also create a comment containing an instruction for what you'd like the other person to include, such as "please add photos of Palermo apartment."

D Sharing your document

There are several ways of sharing a document from your iCloud account. You can send a link from iCloud directly to the other person so they can work directly on the shared document stored in your iCloud via the online version of Pages (they can also download a version to edit in the Pages app, though). To do this, choose the Share via iCloud Link option. You can share the document with a specific person using Mail, AirDrop or Messages, or publicly using social media sites such as Twitter.

E Tracking changes

Before you make changes to a document, choose Edit > Track Changes. Your changes will be attributed to the name specified in Pages' preferences. However, a document in which you're tracking changes can't be shared via iCloud. If you try to do so, Pages asks you either to turn off tracking, in which case you'll need to accept or reject existing changes, or to share a copy using Share > Send a Copy – if you do this, you won't be able to work on the same document online at the same time.

F Changing document layout

Documents that are stored in iCloud can be renamed by choosing File > Rename and then typing a new title. Don't worry; links to shared documents will be preserved – even if you've changed titles – so other contributors will still be able to access them. To change layout, click Document at the very top right, then Section and change how pages and sections are labeled. You can also create new sections.

⚙ OTHER FORMATS
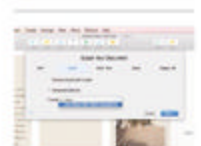
Pages offers a choice of formats. If the person you're working with uses Pages, simply share the original doc with them. If you want to post it to Twitter or LinkedIn for people to read, sharing a PDF makes sense. If you aren't sure what software the other person's got, export it as a text document. Pages will extract the info from your doc and create a new one with the same file name.

Stay healthy with iOS 8

## Check your stats in Health's dashboard

iOS 8 OFFERS a new app that gathers health stats from various sources – so you don't have to open one app for your digital scales, a different app for your fitness band, another that tracks your cycling and so on. Apple's Health app pulls this data together so you can easily check how you're doing, rather than correlating statistics from various sources and trying to analyze them. Even if you're uninterested in the gamification of health, or if you feel you're managing to do just fine without the involvement of technology, Health has another feature… It can create a Medical ID that's accessible from your iPhone's Lock screen, so that in an emergency, whoever finds you – or the medical professionals looking after you – will have access to emergency contacts, details of medical conditions or allergies and treatments that you're taking to determine the care that's given to you.

Setting up your Medical ID could be a lifesaving act – not just for you, but for someone else if, in the worst of circumstances, your Medical ID confirms that you consent to donate your organs.
ALAN STONEBRIDGE
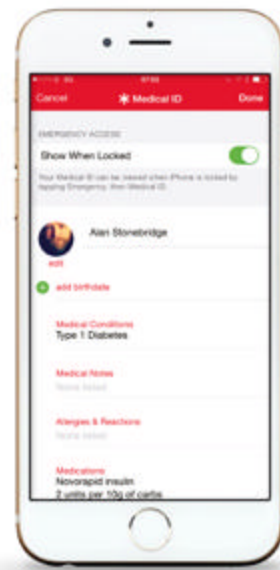
How to **Set up Health for use in emergencies**
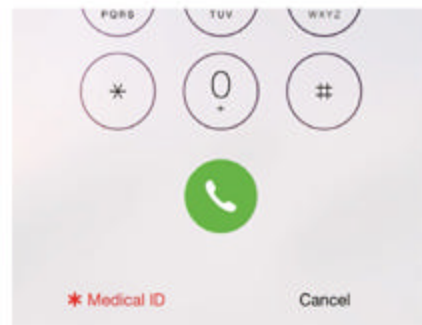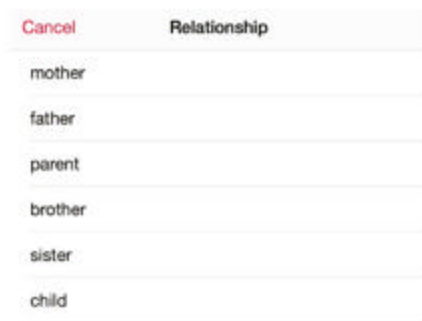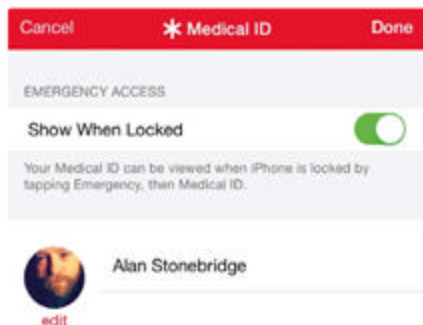
① Set up your Medical ID

In the Health app, tap Medical ID in the bottom toolbar, then tap Create Medical ID on the page that appears. This displays a form for you to detail your age, facts and stats about your body, medical conditions, medications, and whether you are an organ donor. Fill in the form, and leave Show When Locked on if you want the information to be accessible from the Lock Screen.

② Emergency contacts

As well as providing medical details, your Medical ID can display contact info for anyone who you want to be informed about your situation. You can add many contacts from the people in your Contacts app. You can also define their relationship with you, such as parent, sibling, child, friend, colleague, and doctor, so that professionals can reach the correct people.

③ How to access the ID

Now, if someone should find you in an unresponsive state, they can wake your iPhone and slide a finger across the screen to reach the passcode entry screen. Tapping Emergency (bottom left) takes the person to a keypad so they can dial the emergency services, but they'll also see a link that, when tapped, displays the information you added to your Medical ID.

How to Monitor your day-to-day health
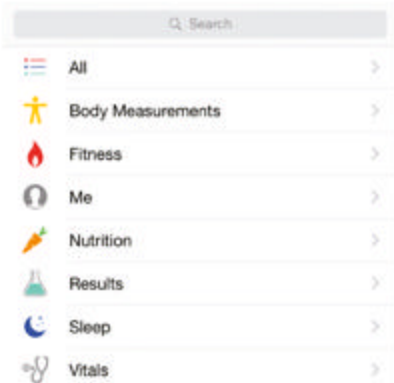
1 Monitor options

The Health toolbar can be used to record and review your well-being. Tap Health Data to see items that can be recorded. They include attributes such as weight; others that your doctor may want to record because of your age, such as blood pressure and heart rate; and yet more that are used to monitor long-term medical conditions, such as blood glucose levels and how often you use an inhaler.
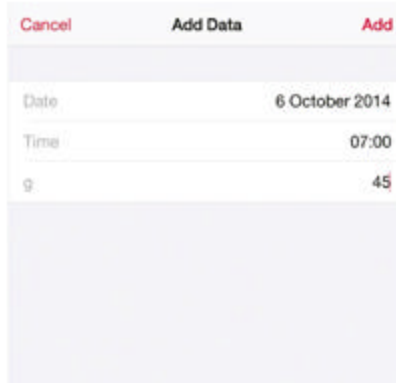
2 Record some data

Tap an item to track and you'll see a graph that's empty for now. Below that, Add Data Point enables you to manually record a reading. Depending on the item type, the form for doing this may indicate an expected scale. The time and date are automatically set to when you're adding the information, but this can be overridden in the event that you couldn't add a reading when it was taken.

3 Manage your data

Tap Add to return to the overview of the graph. Tap Show All Data to review everything in numeric form. Data needn't be added manually. Tap Health Data > Fitness > Walking + Running Distance (or Flights Climbed) to see data captured by your iPhone's sensors. Data can be removed by tapping Show All Data and swiping left on an item, then tapping Delete, or by tapping Edit then Clear All.
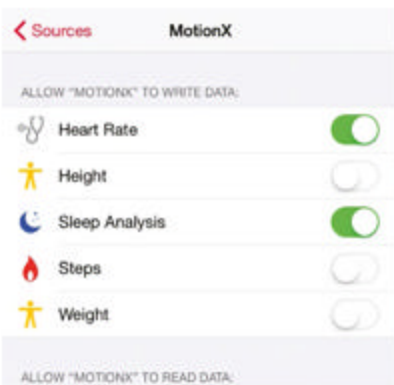
4 Other data sources

Other apps can supply data; they may use your iPhone's GPS to track, say, cycling distance, or connect to a Bluetooth accessory to track exercise, heart rate, etc. Apps ask permission to provide data; you can review these – and which items each can update – by tapping Sources. Permissions can be rescinded in Settings > Privacy > Health, and Motion Activity and Location Services there.
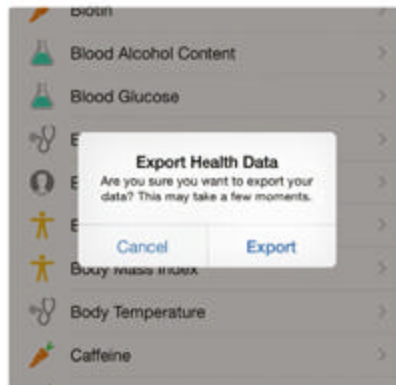
5 Export health data

Data can be emailed by tapping Health Data > All > Share (top right). The archive this creates contains two files structured in a way that isn't easy to read without specially-designed software. As Health becomes more widely used, expect more professionals to provide ways to use this data. For now, Health is more useful as a way to review your progress with a professional in person.

THE DASHBOARD

Some fitness apps receive data from other hardware, which connects to your iPhone using Bluetooth. The Health Mate app from Withings receives data from the company's products, such as its Smart Body Analyser, and feeds this into the corresponding items in Health. You may have a blood pressure monitor from one company and a wearable band to track exercise or sleep patterns from another, and use the sensors in your iPhone to track findings from both. The data can be collated in Health's Dashboard, which provides a single place to monitor a multitude of attributes and activity.

Black and white in Photoshop

Get creative with mono photography on your iPad

REQUIRES

> iPhone/iPad, Photoshop Touch

LEVEL

> Hard

IT WILL TAKE

> 20 minutes

PHOTOSHOP IS WITHOUT doubt the most world's most versatile and widely used image-editing software. Adobe has also introduced Photoshop Touch, a mobile version that's available for the iPhone, iPad and Android tablet devices. While it's only fraction of the price of the desktop tool, it's a powerful piece of image-editing software in its own right. It includes a wide range of tools, and features and functions.

Naturally, an iPad will be a bit slower processing high-res raw files directly out of a pro-level SLR than a powerful Mac or PC, but it's the perfect accompaniment for photographers and image makers wanting to sketch out ideas, make quick edits, assemble basic composites and more while on the go. Photoshop Touch offers the perfect solution to quickly seize the moment.

In these two walkthroughs, we're going to look at some of the core skills you need to get the most out of Photoshop Touch when trying to create striking black and white images. There's much more to perfect mono photography than simply removing all the color…

First, we'll cover the basics and show you how to make a simple black and white shot – and, most importantly, how to boost the contrast with a Curves adjustment, giving a much richer image. A simple black and white conversion using Photoshop's built-in tool will often come
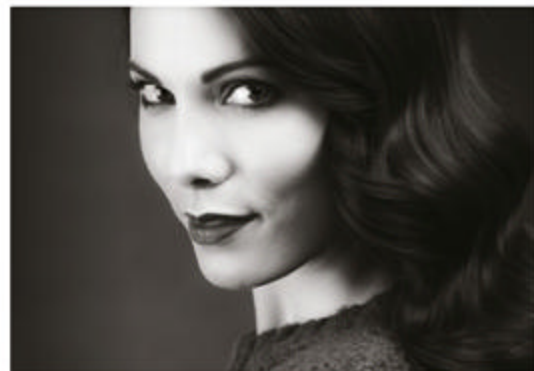
Using paint effects in Photoshop Touch you can convert to black and white without losing detail or depth.

out looking a little flat, lacking the drama of a great mono shot. With just a few taps, you can customize the richness of the shadows and the brightness of the whites. In a nod

THERE'S MORE TO MONO PHOTOGRAPHY THAN REMOVING COLOR

to the traditional darkroom of a bygone era, we'll show you a cool way to "dodge and burn" using layers and blend modes, adding even more control and detail to your shots.

A great way to add mood to black and whites is to add color tints such as sepia, but you can take this a step further and add several tints; "split toning" again refers to traditional techniques where dark shadow tones are tinted with one color, and highlight areas are tinted with another.

One of the best things about Photoshop is that you can take different images, cut them out and incorporate them into other pictures. You can combine the techniques we've used here with other images to make an image where, say, the portrait subject is colour, but the rest is mono. Photoshop Touch has some fantastic tools to help you achieve this. In fact, some tools, such as the Scribble selection are so good that one wonders why they aren't in Photoshop Touch's big desktop brother, Photoshop Creative Cloud. **BEN BRAIN**

Create drama by using split toning colors in the dark and light areas of your shot.

How to Make a basic B&W conversion
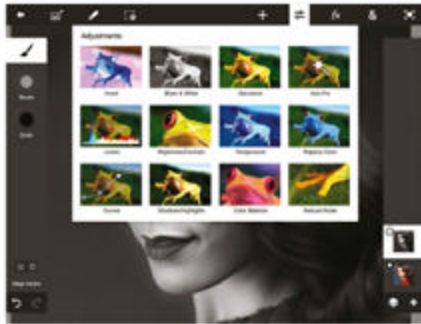
1 Make it mono

Open Photoshop and get your image, whether from Adobe Creative Cloud or stored on your device. Go to the Layers Panel and duplicate the layer using the + icon. Tap the Adjustments menu (the icon that looks like control sliders) and select Black & White. This will remove all color information, but there are no controls for tonality or contrast.
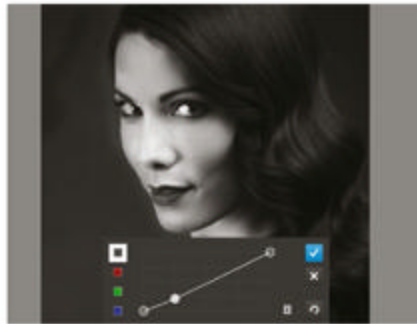
2 Tweak the tones

To boost the tonality, tap Adjustments and choose Curves. Touch the Curve to make an anchor point and move it up to make the image lighter and down to make it darker; you can add multiple points by tapping again. The upper part of the line will affect lighter tones, the lower section will affect the dark tones. To boost the contrast make a gentle "S" curve.

3 Dodge and burn

Dodge and burn basically refer to the selective lightening and darkening of parts of an image. There are no dodge and burn tools in Photoshop Touch. However, if you create a new empty layer and change the blend mode to overlay you can paint on this layer with a very soft black brush to make areas darker (burn) or a white brush to make them lighter (dodge).

How to Create a split-tone effect

1 Convert to mono

After opening your image, duplicate the background layer using the + icon in the layers panels and make the image black and white using the walkthrough above. Try to ensure that the combination of tweaks to the curve and adjustments to the dodging and burning result in detail in both the highlights and shadow areas. Duplicate the black and white layer.

2 Map the tones

Go to the FX tab on the main menu bar, select Stylize and choose Multi Gradient Map. The idea is to map colors to the tones in the image. The four Colors represent tones; dark on the left to light on the right. Choose a color for each of the tones, in this case dark blues for the darker tones and creamy yellows for the lighter tones. Set the Gamma to about -50%.

3 Blend it

The intensity of the effect is a little too much and could do with tempering. The best way to control this is with the Opacity slider in the layers panel. Use the slider to drop the opacity to about 55%. This will reveal and blend with the black and white layer beneath, giving a more pleasing result. Of course you can adjust and re-edit this at a later stage.

Make a recovery disk

In case of emergencies, it pays to have a rescue disk to hand...

APPLE DID AWAY with recovery disks when it brought out OS X 10.7 Lion. These days, Apple provides a built-in recovery system within Yosemite. Start your Mac and hold ⌘ + R to go into recovery mode. Here you can start Disk Utilities, restore from a Time Machine backup or perform a clean install. This recovery system is stored on a hidden partition on your Mac's hard drive – so what if something happens to your hard drive? Well, if your Mac can't find the recovery partition but it's connected to the internet via either Wi-Fi or a network cable, it'll start the OS X Internet Recovery Feature. However, if your Mac is not online, or if you've upgraded an older Mac to Yosemite, you could come unstuck. The simplest solution is to press an external USB drive or SD card into service using the OS X Recovery Disk Assistant. To create a recovery disk, you need a USB flash drive or an external hard drive that has at least 1GB free space. You'll also need access to a Mac running Yosemite that includes an existing Recovery HD partition.

The guide below shows how to download the Recovery Disk Assistant and create a recovery disk. Should you need to use it, you can then boot from this disk before restoring from a backup or reinstalling OS X. **JOE CASSELS**

THE OS X RECOVERY DISK ASSISTANT SETS UP AN EXTERNAL DRIVE AS A RECOVERY DISK

How to Use the Recovery Disk Assistant
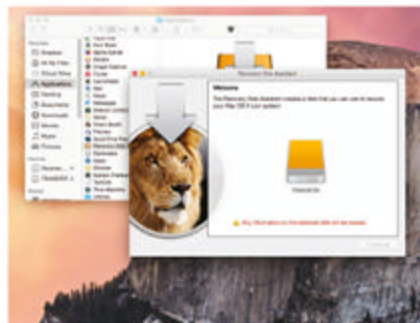
1 Get the Assistant

If the Recovery Disk Assistant isn't already in your Applications/Utilities folder, download it from http://support. apple.com/kb/dl1433. Once the download is complete, double-click the file called "RecoveryDiskAssistant.dmg" in your Downloads folder, then drag the resultant Recovery Disk Assistant.app into your Applications folder.

2 Select drive

Insert a USB drive or attach an external hard drive, launch Recovery Disk Assistant (yes, it still has the OS X Lion image), agree to the terms and wait while external drives are detected. Select the USB or external drive, then click Continue. Note that all data on this drive will be erased so that the assistant can install the files to make a recovery disk.

3 Eject and keep

When the process is complete and you see the appropriate message that tells you so, click Quit, eject the disk, and store it in a safe place. Should you need to use it to recover your computer, make sure the disk is connected, hold ⌥ as you restart, then select the recovery disk from the list of drives. It's worthwhile refreshing this disk every now and then.
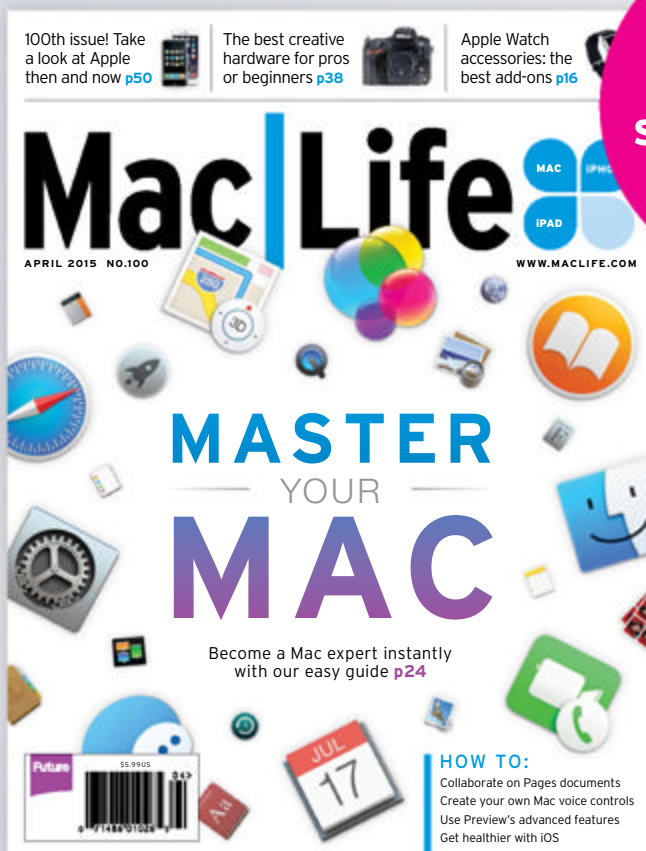
Next Big Things
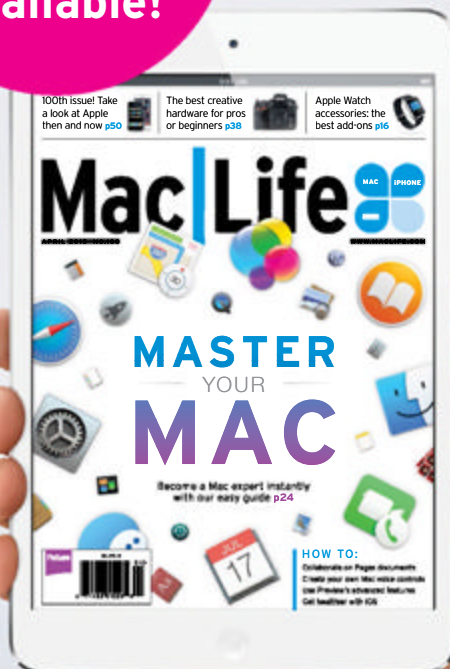
The gadgets, services, and issues that we're looking forward to

Companies such as Elgato and Philips have been working on products that will tie in with Apple's HomeKit framework.

1

HOMEKIT IS HAPPENING

It's been a long time since HomeKit was announced back at WWDC 2014, but after a hefty range of compatible products was revealed at CES in January, maybe the connected home is finally ready to go mainstream. HomeKit support in "smart" gadgets will mean that they all tie into a framework in iOS, so you can control things from different manufacturers at once without them all having had to be made compatible with one another. And then there's Siri support – with just a word to your virtual assistant, you can have the lights turned on, the temperature turned up and the door unlocked. Information can flow the other way, too – HomeKit sensors could tell you if you left a window open, or if a family member has come home early.

2

A NEW WORLD OF APPS

The App Store is practically bursting apart with dozens of options for every kind of app, with a few favorites that always get picked out, but every so often there's a big change-up that unseats the incumbent app royalty and gives new entrants a chance at the throne. The last time this happened was iOS 7, when the total redesign meant that every developer had the chance to be first with a new-look app, or to remake their app in the smartest way to stand out. We think we'll have that again with the Apple Watch. Popular apps that just push simple notifications to it will get forgotten – clever new apps that make use of what's unique about the Watch will thrive. We can't wait to see what ingenious creations will come over the next six months.

3

INSIDE THE NEXT ISSUE

Digital harmony is upon us! We'll have the ultimate guide to using your Mac and iOS devices together – linking everything between them, moving between them for tasks, and using Apple's awesome Continuity features to their fullest. We'll also have a guide to internal upgrades for your Mac, from RAM to SSDs and more. We'll tell you what's worth doing, and what the best deals are. And, of course, there'll be loads of reviews, features and guides!

Mac|Life
NEXT ISSUE ON SALE
MARCH 31